

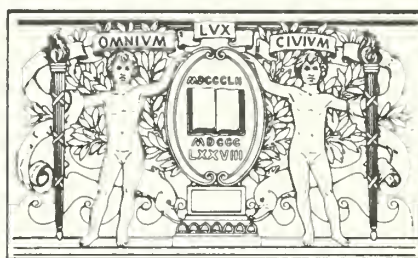
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The Participation of Boston
in a Public Works Program
under the National Industrial Recovery Act

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Boston Municipal Research Bureau
40 Central Street,
Boston, Massachusetts.

August, 1933



THE PARTICIPATION OF BOSTON
IN A PUBLIC WORKS PROGRAM
UNDER THE NATIONAL INDUSTRIAL RECOVERY ACT

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Foreword

The effort to stimulate economic recovery under the National Industrial Recovery Act has prompted the city administration to propose a program of public works for Boston still larger than that which the city has been maintaining.

The Boston Municipal Research Bureau is anxious to aid the broad objectives of the movement toward national recovery. On the other hand, it is equally anxious to insure two things: (1) that the finances of Boston will not be so overloaded as to injure Boston's credit position, and (2) that property owners shall be protected from inadvisable additions to the heavy tax burdens which they have been carrying during the depression.

The following memorandum presents the general and legal background of a public works program in Boston under the National Industrial Recovery Act (Part I), analyzes the city's financial status (Part II), reviews the individual projects proposed by the Mayor (Part III), and discusses the execution of projects (Part IV). The detailed recommendations of the Executive Committee of the Boston Municipal Research Bureau are given at relevant points and are summarized on the following page.

To the extent that information on individual projects other than the Huntington Avenue Subway is incomplete, it is due to the fact that a large program has been presented by the city without supporting data, and lack of time has made impracticable more detailed analysis and study than is here presented.

H. C. Loeffler,
Secretary

GENERAL SUMMARY OF RECOMMENDATIONS

FINANCIAL STATUS OF BOSTON (PART II, pp. 7-18)

The Mayor has proposed a \$23,500,000 program of public works under the terms of the National Industrial Recovery Act. Since the federal government will pay 30% of the cost of labor and materials on such projects as it approves, the maximum of new debt which is contemplated would amount to approximately \$16,500,000. If 4%, 30 year, serial bonds are issued for this purpose, the total carrying charges for interest and retirement of such debt would amount to \$26,400,000 during the term of the bonds. This total would start with a debt service charge of \$1,210,000 for the first year, and decline gradually during the next three decades to \$572,000 for the last year. This program, in the opinion of the Executive Committee of the Boston Municipal Research Bureau is far beyond that which the city of Boston can afford, and in view of the city's building program during recent years, far beyond that which should be expected of this community in making its contribution toward stimulating industrial recovery.

The Committee urges that the program be restricted so as not to involve new debt for Boston in excess of \$5,000,000. This makes possible a total expenditure of approximately \$7,000,000 when the 30% federal aid is taken into consideration. The Committee believes that even this restriction of the Mayor's program of public works projects represents a more liberal position than can conscientiously be taken by many citizens who are anxious to help end the depression, but who simply cannot afford to pay the larger property taxes which must inevitably follow.



MAYOR'S PROGRAM OF PUBLIC WORKS PROJECTS (PART III, pp. 19-64)

The fact that so little information has been made public regarding the projects proposed, naturally makes any final decision concerning them difficult. On the basis of available data, however, we believe that the four following projects would be the most advisable in a \$7,000,000 program. The list, and succeeding discussion, are arranged in order of priority of preference.

(1) Transit and traffic relief (in lieu of Huntington Subway)	\$2,000,000
(2) Reconstruction and repair of streets	2,000,000
(3) Schoolhouse construction	2,000,000
(4) Police stations, and signal system	600,000
Adjustment for items involving no federal grant	<u>400,000</u>
Total program	\$7,000,000

If an \$8,500,000 subway is decided on, the full limit of advisable over-
all expenditures will have been used up, and expenditures for any other projects
would be inadvisable. It is to be hoped that approval of a subway of extremely
doubtful worth will not prevent execution of more meritorious proposals.

Transit and Traffic Relief (pp. 20-38)
(in lieu of Huntington Avenue Subway)

1. The need for a subway on Huntington Avenue has not been demonstrated from the standpoint of transit, traffic or unemployment relief.

2. Many varied proposals for a subway have indicated a woeful lack of real planning.

3. Neither the Boston Elevated Railway nor overburdened property owners in Boston can afford the cost of this project.

4. The Rothwell plan for a tunnel at Copley Square, and a two-level underpass at Huntington and Massachusetts Avenues, could be constructed at less than half the cost proposed for the Huntington Avenue Subway, and has the advantage that it relieves traffic congestion at the important Massachusetts Avenue, and the Boylston Street intersections.

5. A one-level underpass should be constructed at the intersection of Huntington and Massachusetts Avenues, and traffic regulations should be made

more drastic. Even if the completion of the Worcester Turnpike greatly increases Huntington Avenue traffic, these remedial steps would go far toward taking care of traffic congestion.

6. Even if a Huntington Avenue subway were warranted, no justification would exist for extending it for a greater distance than from Copley Square to Opera Place.

7. The Research Bureau urges, (a) that the subway proposal be disapproved, and (b) that not more than \$2,000,000 be expended for specific transit and traffic relief projects. This sum will permit the construction of several one-level underpasses at congested street intersections.

Reconstruction and Repair of Streets (pp. 38-44)

1. The city has been expending about \$1,000,000 annually in recent years on pavement work.

2. It is suggested that normal pavement requirements for the years 1934 and 1935 be cared for by a \$2,000,000 program of street reconstruction and repair at this time. City bonds to pay for these expenditures should have a maximum term not exceeding ten years.

3. Much manual labor is required for pavement work. The maximum reduction in welfare expenditures of the city would occur if such work is made available to those welfare recipients who are now receiving the largest monthly allowances.

4. The numerous critical reports of the Finance Commission showing waste and extravagance in local paving work indicate the need of careful scrutiny in the selection and execution of individual pavement projects by federal and state authorities.

5. Study of pedestrian and vehicular accidents at hazardous street intersections, and of relief for congested, narrow sidewalks should be hastened, in order that part of the \$2,000,000 may be utilized to eliminate the most dangerous points or crowded condition.

New Schoolhouse Construction (pp. 44-52)

1. The present and future school needs of growing West Roxbury justify the construction of a high school.

2. The construction of a junior high school in South Boston should permit of readjustment of school plans in that region on a more efficient basis.

3. General advantages of the two projects are the provision of better school facilities, the anticipation of building needs of the near future and the relieving of unemployment in the building trades.

4. General disadvantages are the violation of the pay-as-you-go policy, the cost of sites, and the increase in maintenance costs.

5. While construction of the two schools could be postponed, they are preferable to the subsequent projects discussed in this memorandum.

Police Stations (pp. 53-56)

1. The Mayor's program provides for the construction of three new police station houses costing \$200,000 each, - Number 11 at Fields Corner, Dorchester, Number 17 at West Roxbury, and one new station to take the place of Station Houses 9 and 10, which are to be consolidated.

2. This program should at least be reduced so that not more than two station houses are constructed, through abandonment of the proposed construction of a new Station House 11. This would make \$200,000 available for improving the police system of cables and patrol boxes.

3. A better plan would be to build but one new station house costing \$200,000 and complete the work on the system of police communications, at a cost of some \$345,000, less recent expenditures for this purpose from regular police budgets.

4. If two-way radio cars prove satisfactory and are used extensively in outlying, sparsely settled districts, the number of improved "flash-light" patrol boxes and circuits installed would not need to be so large as would otherwise be the case.

Other Projects (pp. 57-64)

The foregoing sections of this memorandum (Part III) have approved, in order of priority of preference, four of the twelve projects included in the \$23,500,000 program proposed by the Mayor. These four projects involve the expenditure of approximately \$6,600,000.

The available criteria indicating the financial status of Boston's city government, and the recent active construction program of the City, have caused the Research Bureau to urge (Part II) a maximum over-all expenditure of \$7,000,000 on new federal-aid projects in Boston. This maximum would necessitate \$5,000,000 of new city debt if the federal government reimbursed a full 30% of the outlay. Actually, the percentage of contribution will be somewhat smaller because the federal grant will only be applied to the cost of labor and materials; the City must incur all other expenditures in full for such items as land-taking.

The latter factor will probably use up the differential between the estimated cost of the four approved projects at \$6,600,000, and total expenditures of \$7,000,000. Brief summaries of available data relative to the remaining eight projects are therefore presented in the memorandum without recommendations since no funds will be available for their execution. It may be that reductions in the final cost estimates of the four approved projects will make some of a \$7,000,000 limit available for other construction.

EXECUTION OF PROJECTS (PART IV, pp. 65-66)

Proper mechanism should be set up to control the execution of improved projects, covering such matters as a maximum limit on expenditures, contracts and competitive bidding, land-takings, supervision of projects, the reduction of welfare costs, and the terms of new debt.

Part I

GENERAL AND LEGAL BACKGROUND

In order to establish the legal structure which will underlie the program of new public works which is being proposed for Boston by the Mayor, there is given below a brief synopsis of the National Industrial Recovery Act, and of the Massachusetts statute which takes advantage of federal aid for public works projects.

Synopsis of National Industrial Recovery Act, and Supplementary Regulations. Title II of this Act, which was approved June 16, 1933, offers federal aid to states, counties and municipalities in the financing of public works, municipal improvements, and slum-clearance projects. Important provisions of the Act relative to the selection of projects and the expenditure of federal funds, are as follows:

"Upon such terms as the President shall prescribe (grants may be made) to States, municipalities or other public bodies for the construction, repair or improvement of (the above types of projects), but no such grant shall be in excess of 30 per centum of the cost of the labor and materials employed upon such project(Sec. 203 A2)

"Provided, That in deciding to extend any aid or grant hereunder to any State, county or municipality, the President may consider whether action is in process or in good faith assured therein reasonably designed to bring the ordinary current expenditures thereof within the prudently estimated revenues thereof.....(Sec. 203 A5)

"All contracts let for construction projects and all loans or grants pursuant to this title shall contain such provisions as are necessary to insure (1) that no convict labor shall be employed on any such projects; (2) that (except in executive, administrative, and supervisory positions), so far as practicable and feasible, no individual employed on any such project shall be permitted to work more than 30 hours in any one week; (3) that all employees shall be paid just and reasonable wages which shall be compensation sufficient to provide, for the hours of labor as limited, a standard of living in decency and comfort; (4) that in the employment of labor in connection with any such project, preference shall be given, where they are qualified, to ex-service men with dependents provided, that the maximum of human labor shall be used in lieu of machinery wherever practicable and consistent with sound economy and public advantage. (Sec. 206)

"For the purposes of this Act, there is hereby authorized to be appropriated out of any money in the Treasury not otherwise appropriated, the sum of \$3,300,000,000." (About \$550,000,000 is specially allocated by other sections for specific purposes.)--(Sec. 220)

On July 31, 1933 the Federal Emergency Administration of Public Works issued Circular No. 1 describing "its purposes, policies, functioning and organization," and on August 1, 1933, Circular No. 2 stipulating the information required from States, and other public subdivisions in making applications for loans. The latter circular requires detailed general, legal and financial information as to individual projects and government finance.

Circular No. 1 establishes the following tests for eligibility of projects (Art. II, Sec. 6 and 7).

"1. The relation of the particular project to coordinated planning and its social desirability. Note -- No project will be considered which is a mere makeshift to supply work. (Consideration will be given to) changes in population, industries, and other social and economic factors.

"2. Economic desirability of the project; i.e., its relation to unemployment and revival of industry.

"3. The soundness of the project from an engineering and technical standpoint.

"4. The financial ability of the applicant to complete the work and to reasonably secure any loans by the United States.

"5. The legal enforceability of the securities to be purchased by the United States or of any lease to be entered into between the applicant and the United States.

"Preferences - (1) Projects integrated with and consistent with a State plan are to be preferred to the isolated or inconsistent. (2) Projects which can be started promptly are to be preferred to those requiring delay. (3) Projects near centers of unemployment are to be preferred."

Synopsis of Massachusetts legislation. On June 21, 1933, the Governor of Massachusetts sent a message to the Legislature suggesting a framework of legislation which would take advantage of federal aid on new public works projects under the National Industrial Recovery Act. He estimated that the Commonwealth and its subdivisions could expect to receive approximately \$75,000,000 in grants and loans from the federal government, and recommended that not more than \$30,000,000 be appropriated for state projects.

Shortly thereafter the Legislature enacted a law providing for federal aid projects (Chap. 366, not yet available in printed final form) consisting of

the four following parts:

Part I provides that the State Emergency Finance Board, established previously by Chap. 49, Acts of 1933, is to be in control of local projects. Sec. 1
Cities or towns by a two-thirds vote (Sec G. L./Chap. 44), with approval of the mayor, may engage in local public works projects prepared under N. I. R. A. if the Board, the Governor and the federal authorities approve, and federal aid is granted. New debt may be assumed by cities beyond their present debt limits to the extent of 1% of the average of their assessed valuations for the past three years. The Board shall fix the terms and interest rates of bonds. Approval of bonds requires information as to city debt, both inside and outside the limit, the estimated cost of the project, the alleged necessity therefor and the proposed method of financing it.

"In granting or withholding its approval, the board shall take into consideration, among other things, the necessity of the proposed project, the ability of such city or town to finance the same, the extent to which the carrying out of the project will tend to relieve unemployment, and the extent to which the maintenance of the project when completed will tend to increase or decrease the annual expenditures -- or tax burden" Sec. 2.

Highway and sewer work shall utilize human labor rather than machinery, and wages "shall not be less than the prevailing rate of wages as established by the federal government." Power of eminent domain is granted. Water and sewerage systems will require approval of the state Department of Public Health. The Board is authorized to establish rules and regulations. Unless inconsistent with the N. I. R. A., contracts "shall only be awarded to citizens or to corporations a majority of whose officers and directors are citizens" Part I applies "to any fire, water, light, or improvement district."

Part II provides that if the Board, Governor and federal authorities approve, the Transit Department of the City of Boston "may construct within the limits of the city a subway connecting with or being an extension of any existing subway." Subway bonds are to be issued against the additional 1% debt limit. Subway work is forbidden until a plan is approved by the Depart-



ment of Public Utilities and the Mayor, and "until a contract between the City and the Boston Elevated Railway Company shall have been executed for the sole and exclusive use by the company of the premises." Annual rental paid by the company shall be 1/2% of the net cost of the premises and equipment, plus interest on the bonds, provided its reserve fund (Sec. 5, Chap. 159, Special Acts 1918) is sufficiently large after meeting certain other charges. If it (of Boston) is not large enough the rental shall be placed in the "next ensuing tax levy,"/ Acceptance of Part II by Boston City Council and Mayor shall permit immediate preliminary work to the extent of expenditures amounting to \$10,000. "All contracts involving \$2,000 or more in amount shall be in writing and signed by a majority of the (city Transit) Department." Part II shall not be presumed to indicate legislative preference for a subway "over any other project which may be submitted to the board by the City of Boston."

Part III permits rapid transit extensions outside the city of Boston connecting with existing lines of the Boston Elevated Railway Company.

Part IV provides that if the Board, the Governor, the federal authorities, and the Mayor and City Council of Boston agree, the Boston Transit Department may remove existing elevated structures of the Boston Elevated Railway Company.

Members of federal and state boards. The members of the federal and state boards which will control the selection and approval of Boston public works projects, are as follows:

Federal Advisory Board for Massachusetts

Alvan T. Fuller of Boston - Chairman
James P. Doran of New Bedford
John J. Prindiville of Framingham

State Emergency Finance Board (Created under Chap. 49, Acts of 1933)

Joseph W. Bartlett of Newton - Chairman
William B. Coy of Westfield
Daniel J. Doherty of Westfield

- - - -

(Ex Officiis)

State Treasurer Charles F. Hurley of Cambridge
Director of Accounts Theodore N. Waddell of Winthrop



Mayer's program of public works projects. On June 12, 1933 the Mayor proposed a program of public works projects for Boston which would involve a total expenditure of \$26,400,000, less the amount of federal aid which is granted. On August 7, 1933, he suggested a revised program which reduced the amount of anticipated expenditure by \$2,900,000. Both programs are listed below.

Public Works Projects
Proposed by the Mayor

<u>Projects</u>	<u>Amt. Provided in Program of 6-12-33</u>	<u>Amt. Recommended to City Council, 8-7-33</u>	<u>Vote of City Council, 8-17-33</u>	
			<u>For</u>	<u>Against</u>
1. Huntington Avenue Subway	\$8,500,000	\$8,500,000	19	2
2. Sewerage Construction	3,000,000	3,000,000	17	4
3. Reconstruction of Streets	2,500,000	2,000,000	18	3
4. New Hospital Buildings	2,000,000	2,000,000	20	1
5. High Service Water Pipe Ext.	800,000	800,000	17	4
6. South Boston Strandway Impr.	1,400,000	1,500,000	15	6
7. Schoolhouse Construction	2,000,000	2,000,000	21	0
8. Playground and Park Impr.*	---	1,200,000	13	8
9. Yard Bldgs. Pub. Wks. Dept.*	---	500,000	13	8
10. New Police Stations	---	600,000	16	5
11. New Fire Stations	---	600,000	16	5
12. New Prison Bldg.*	---	800,000	13	8
13. No. Ave. or Warren St. Bridge	1,000,000	---	--	--
14. Courthouse Development	5,000,000	---	--	--
15. Improvement of LaGrange St.	200,000	---	---	---
Total	\$26,400,000	\$23,500,000		

Changes made in the original program of the Mayor before submission of the list to the City Council were as follows:

<u>Total of original program</u>		\$26,400,000
<u>Less</u>		
Decreased allowance for streets	\$500,000	
Projects abandoned (Courthouse development, North Avenue or Warren St. Bridge and LaGrange St. Improve- ment)	<u>6,200,000</u>	<u>6,700,000</u>
		\$19,700,000
<u>Plus</u>		
Increased allowance for South Boston Strandway Improvements	\$100,000	
New Projects (Playground and park improvements and new construction for Fire, Police, Penal Inst. and Public Works Departments)	<u>3,700,000</u>	<u>\$3,800,000</u>
<u>Total of final program submitted to City Council</u>		<u>\$23,500,000</u>

*Failed of two-thirds majority vote required under Chap. 366, Acts 1933, Sec. 2; a simple reference to the higher authorities was voted, 12 to 7.

City Council Hearings. Upon receipt of the Mayor's program, the Boston City Council Committee on Finance held a series of hearings during the first week in August at which department heads or their representatives were called in to explain the items in the program. One outstanding feature of these hearings was the paucity of study, plans, cost estimates, and underlying data concerning the specific projects advocated. The Committee held a public hearing on August 7 which, while poorly attended, displayed marked differences of opinion among those speaking.

On August 7 Chairman Dowd of the Committee on Finance reported to the City Council that his Committee was hopelessly divided on the various projects, but that solely to bring the matter to the floor of the Council, it had decided to report "ought to pass" on the program. Thereafter in that meeting, the vote indicated above took place.

Part II

FINANCIAL STATUS OF BOSTON

Before considering the financial conditions which are unique to the City of Boston, brief mention should be made of the general problem of municipal finance under present depressed conditions. The breakdown of industry and commerce has for some years thrown on municipal budgets enormous welfare costs with which private contributions could no longer cope. Some cities have gone practically bankrupt trying to meet these additional costs.

The National Industrial Recovery Act not only is setting up a system of codes designed to improve and to stimulate industrial recovery, but in addition it is holding out to cities generally, federal aid in constructing approved public works projects. This federal aid will be raised by federal taxation, but it must be remembered that any increases in federal taxes are added to the municipal and state taxes which collectively are a heavy burden, particularly on the citizens of large metropolitan centers such as Boston. Because of the attraction of the 30% of the cost of labor and materials to be paid by the Federal government, some cities have been tempted to consider public works projects of doubtful desirability. There has also been a feeling that if a city did not build something, it would, through federal taxes, help pay for the projects of other cities although it had received nothing itself.

It is argued persuasively that public works projects built from tax revenue of the present and the future will stimulate employment and hence recovery. It must be remembered, however, that systems of municipal revenue are based predominantly on the general property tax, and that additions to this tax may have considerable depressive influences which will tend to counter-balance the stimulation that arises from spending the resultant revenues.

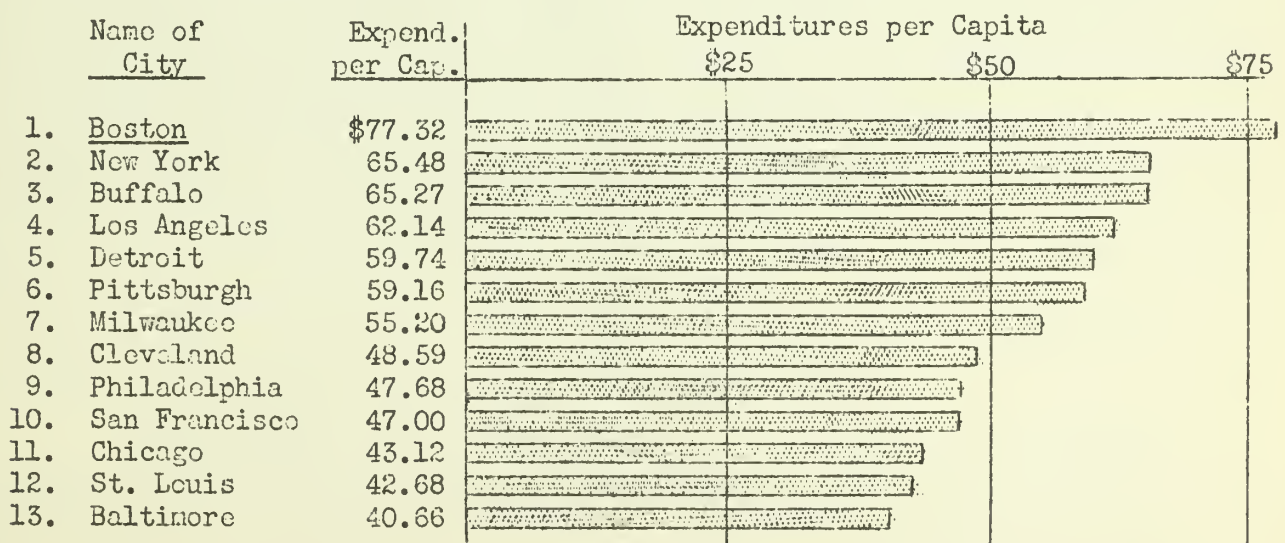
Finally, Boston is probably one of the best examples of cities which had been carrying on a rather large program of public works projects

in advance of the program now being initiated from Washington. Boston's \$19,000,000 East Boston Traffic Tunnel which will soon be finished, and the construction of the Governor Square Subway extension are notable illustrations of this point. Where cities have been carrying on their own work relief activities in advance of the N. R. A. national plan, that fact should be given careful consideration, particularly in cities where finances and credit are beginning to show signs of strain.

The outstanding facts with relation to the financial status of Boston are as follows:

Expenditures

Expenditures per capita. The following tabulation and chart list, in order of size, the expenditures per capita during 1931 of the thirteen cities in the United States with populations over 500,000. The data are taken from the latest U. S. Census report and show the operation and maintenance costs of general departments, excluding public service enterprises, interest and outlays. The ranking would be the same for Boston if these exclusions had not been made.



This tabulation shows that Boston was spending more per person than any other large city in 1931. In order to show subsequent developments, the following tabulation of tax rates is presented. Tax rates give an indication of city expenditures in 1932 since so great a proportion of those expenditures

is paid by the general property tax in all cities. The tax rates have been adjusted by a national authority to compensate for the practice of cities in not assessing property at actual value. Although opinions may vary as to the accuracy of any expert's estimate, this comparison represents the considered judgment of a recognized authority in municipal finance.

<u>Year</u>	<u>Adjusted Tax Rate</u>		<u>Rank of Boston's Rate</u>
	<u>Aver. 12 Cities</u>	<u>Boston</u>	
1928	\$21.94	\$25.92	Second highest
1929	22.90	25.20	Fifth highest
1930	22.04	27.72	Highest
1931	22.95	28.35	Highest
1932	24.01	35.50	Highest

These two tabulations indicate that the burden of governmental costs in Boston, whatever may be the reason, undoubtedly was considerably higher at the start of the present calendar year than in any other large city of the United States.

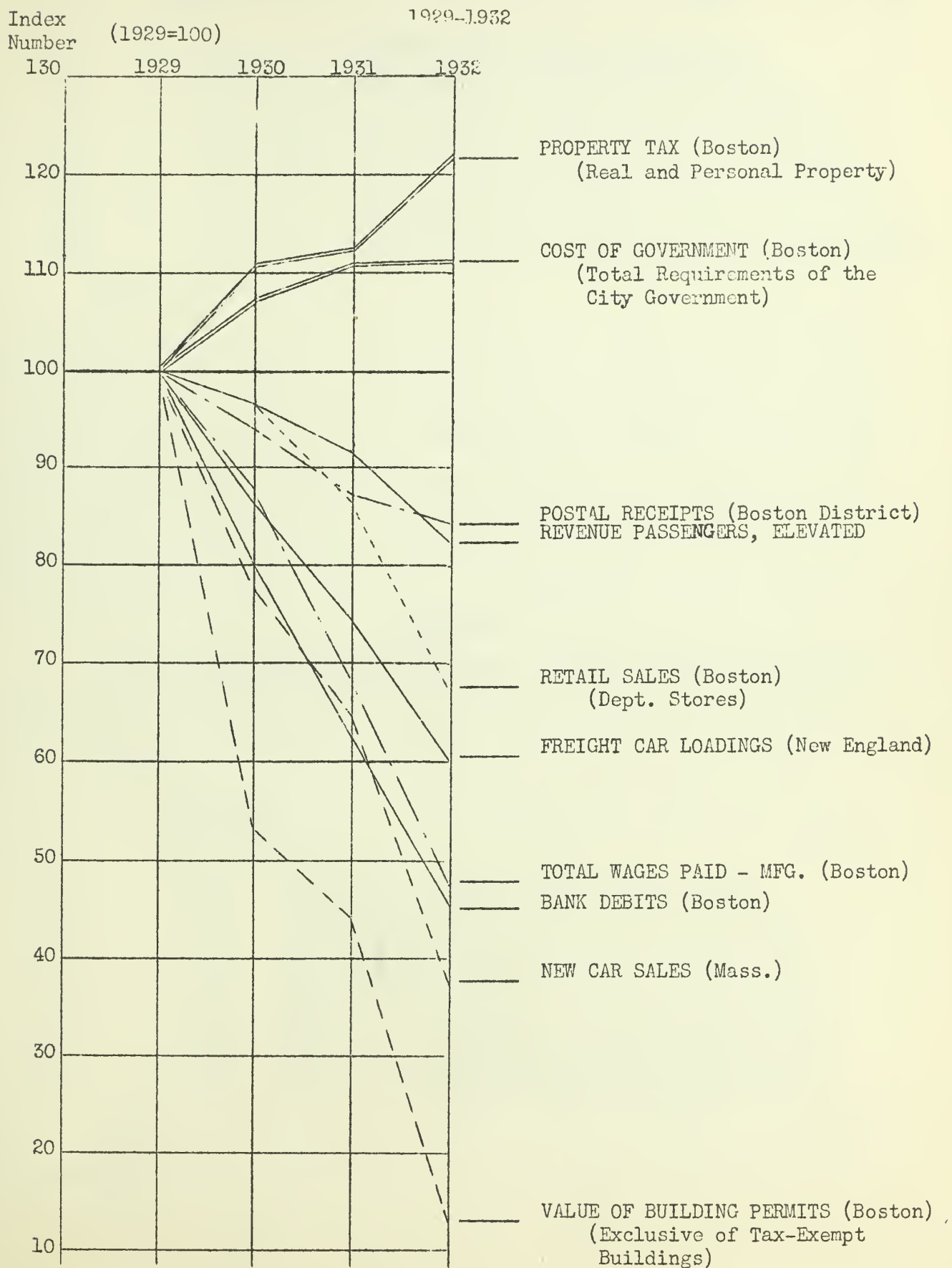
Community income. The accompanying chart compares the trend of governmental costs in Boston with various indexes of community income which are relevant. The Research Bureau has used this chart in urging city officials to reduce city expenditures to help relieve the drain which has been occurring on earnings, surpluses and reserves during the years of the depression. The persistent failure of those officials to recognize adequately the facts as to the public's shrunken capacity to pay taxes, adversely affects all groups in the city -- public employees, wage-earners, unemployed persons, tradesmen, property owners, bank depositors, and professional men.

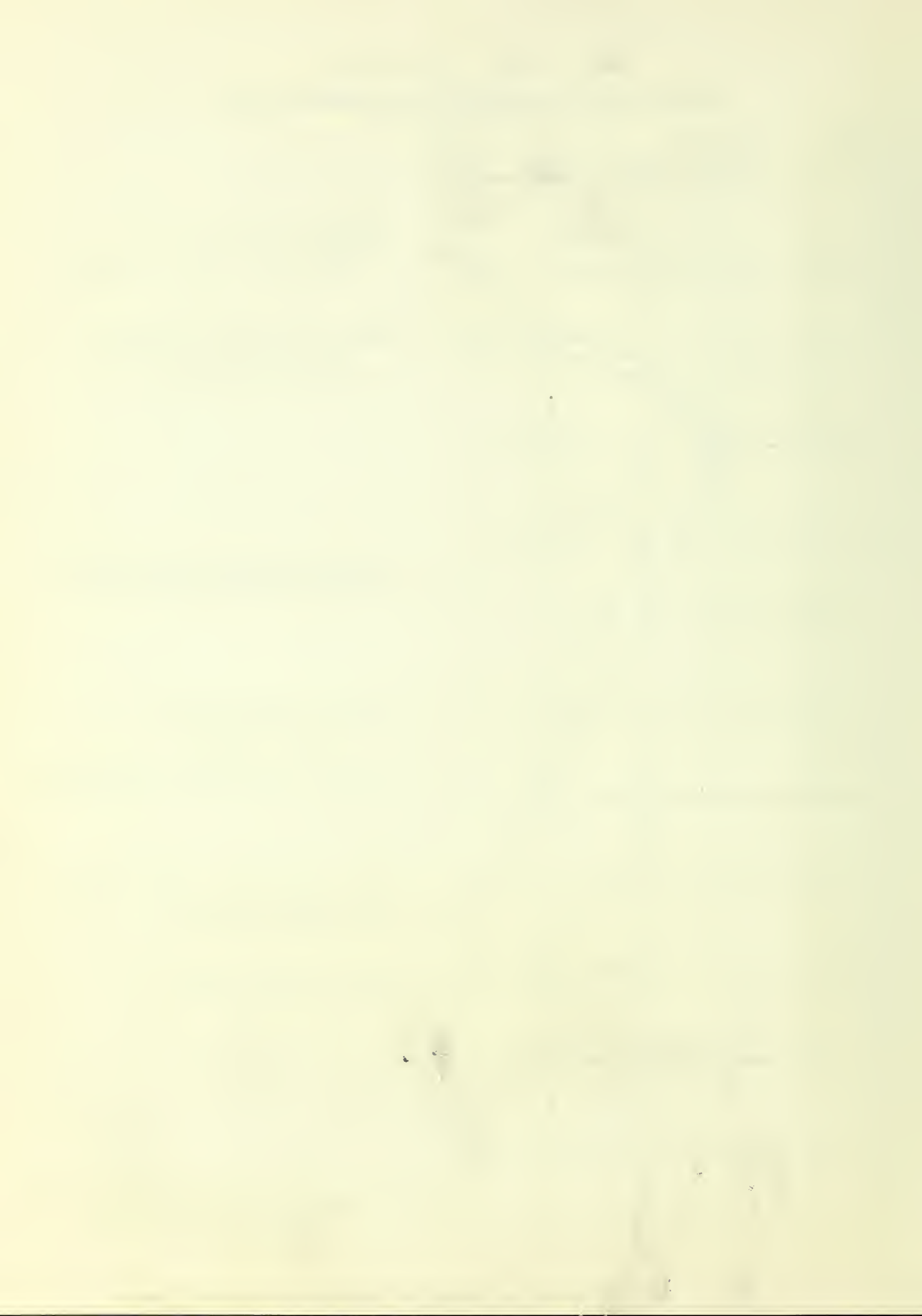
Growth of the cost of government. An indication of the mounting cost of government to the Boston taxpayer is shown by the following tabulation of total warrants and appropriations. All city expenditures affecting the tax rate are made under this classification, which includes the state warrant and assessments, and all appropriations for city, county and school expenses.

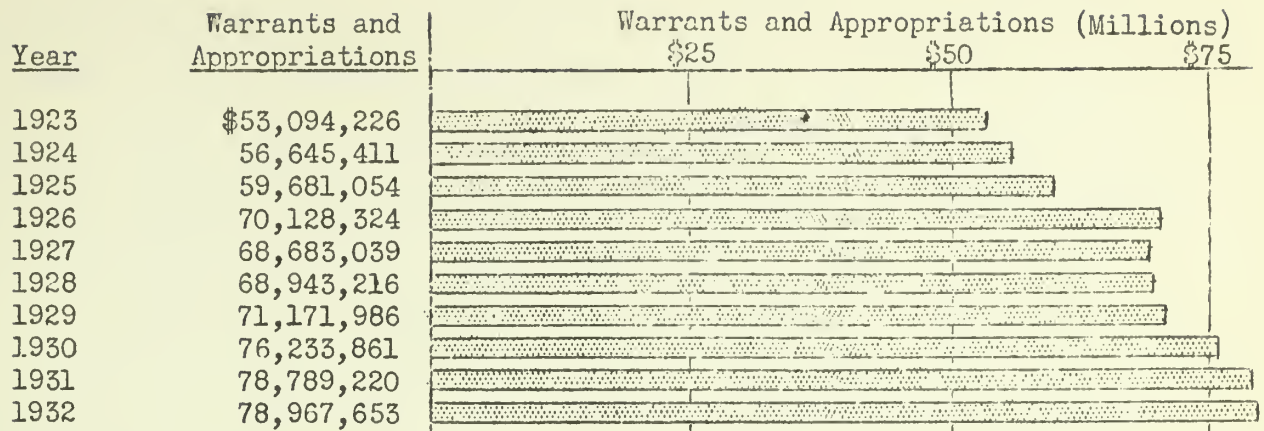


City of Boston, Massachusetts

TRENDS OF COST OF GOVERNMENT AND COMMUNITY INCOME



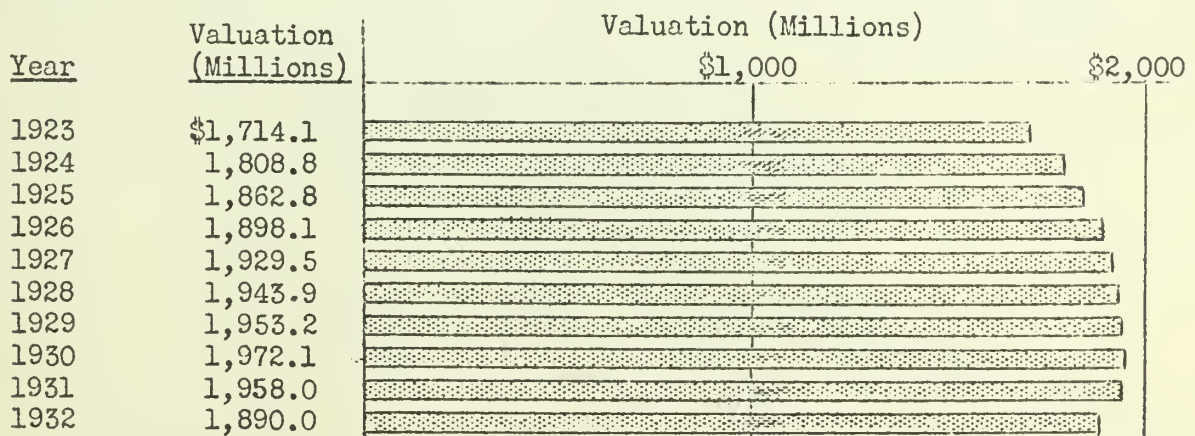




While the decided upward trend in the cost of government has continued during the depression, the capacity of the public to pay has been greatly reduced as is shown by the preceding chart. This situation cannot be dismissed with an assertion that the increase has been caused mainly by larger public welfare disbursements. City officials have been unable or unwilling to reduce other costs in adequate degree to compensate for the new requirements caused by the depression.

Taxation

Assessed valuations and tax refunds. To add to the city's financial dilemma, assessed valuations of real and personal property have started to decline as follows:



As will be noted, assessed valuations have not declined very greatly from peak conditions in terms of an over-all percentage. The decline, however, which has already taken place, and the further decline which must take place present a complication in city finances which must be met. It is believed that

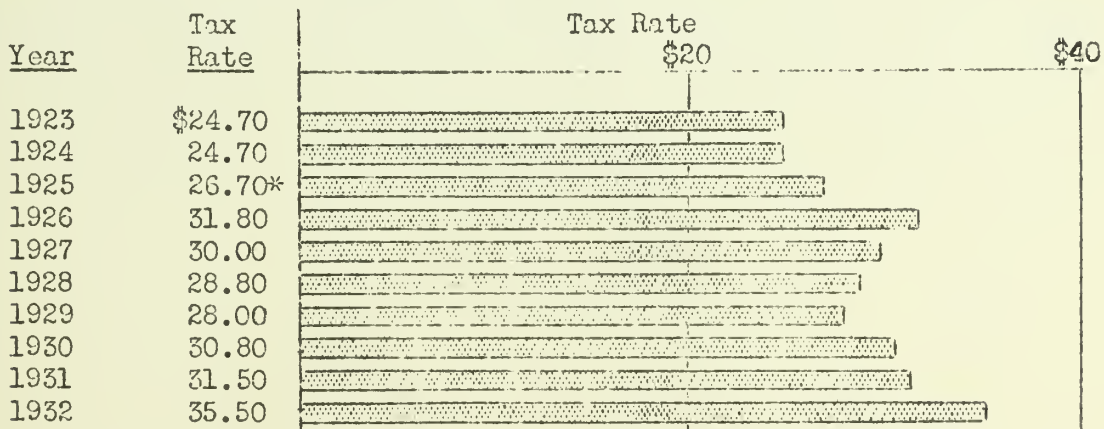
this trend will inevitably continue until the valuations reach approximately the much lower level of present actual values. In fact, the Mayor has publicly announced a policy toward assessed valuations on which the City "embarked three years ago" whereby an average decrease of \$75,000,000 is contemplated in each year of the next three years. (City Record, April 8, 1933, page 318).

An indication of excessive assessed valuations at this time is the amount of tax refunds being allowed annually. These amounts in recent years have been as follows:

<u>Year</u>	<u>First Six Months</u>	<u>Whole Year</u>
1931	\$318,120	\$407,196
1932	558,887	896,546
1933	939,728	

The tabulation shows that refunds have been increasing very rapidly. The refunds made during the first half of 1933 indicate that the refunds for the whole of the year will greatly exceed those of last year, which in turn were double those of the preceding year.

Tax rate. The annual city tax rate announced by the local Board of Assessors has been as follows during the past decade:

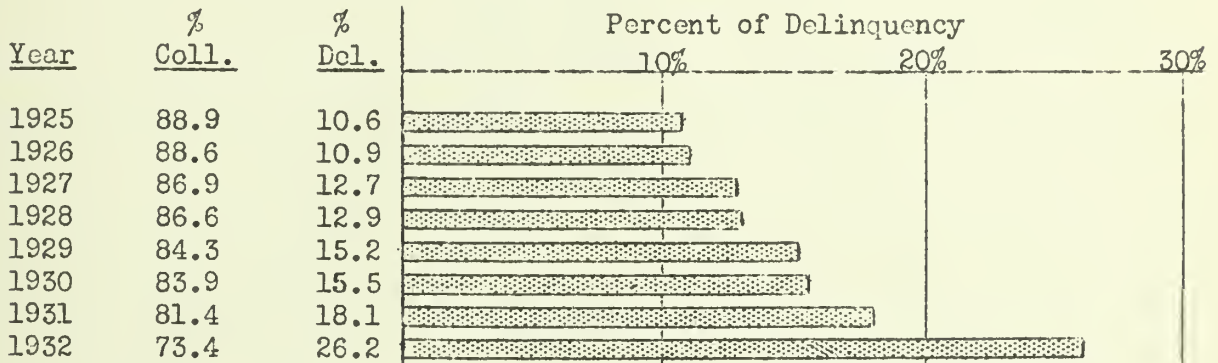


Tax collections, delinquencies and "deficits". Various indications are in evidence that real property is unable to bear the increasing tax rate.

* Eleven months year.



Of these, perhaps of greatest importance, is the following tabulation of the decrease in percentage of taxes collected and the increase in the percentage of tax delinquencies (latter is charted). Taxes are due on September 15; the percentages relate to the condition as of the end of the year of the levy (December 31). The percentages of collections and delinquencies do not quite add up to 100% because allowance is made for abatements.

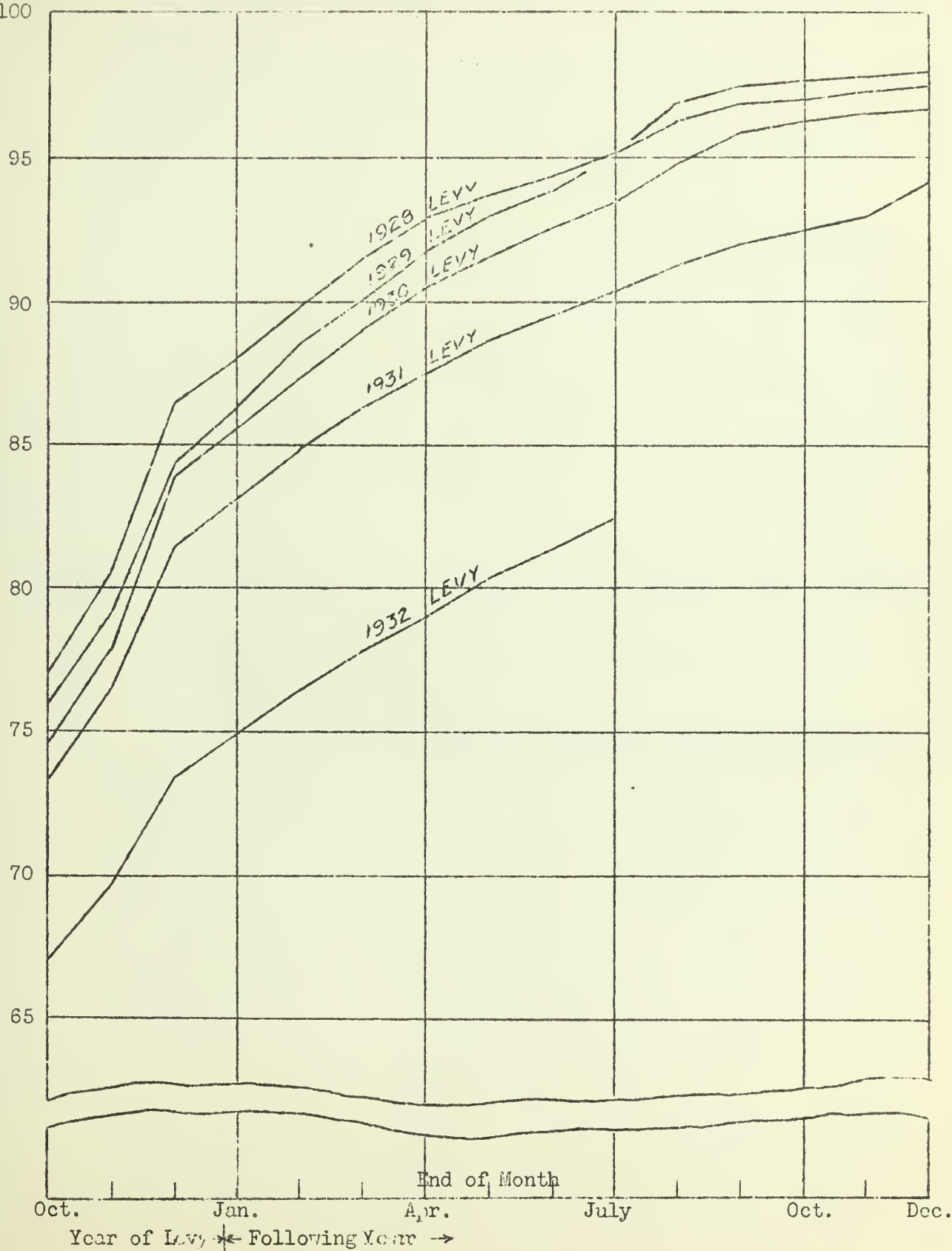


The figures for 1923 and 1924 are omitted because the city changed its fiscal year at the end of 1925.

Collections of each levy over a longer period (as of the following July 31) do not materially change this comparative picture. These percentages of collections during the past five years are listed below. Similar percentages relating to delinquencies are not given since they are not shown in the monthly reports of the City Collector.

<u>Year of Levy</u>	<u>% Collected by Following July 31</u>
1928	95.2
1929	95.2
1930	93.5
1931	90.3
1932	82.4

Uncollected taxes on all levies as of December 31, 1932 were a total of \$22,141,000. It is highly probable that the total at the end of this year will exceed that for 1932. In fact the Mayor has predicted, ".....there is every indication that unless prosperity speedily makes its presence known the

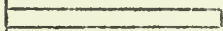
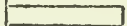
BOSTON LEVIES OF 1928-32Percent
Collected
100Expressed in Cumulative Percentages

(Prepared by Boston Municipal Research Bureau)

tax delinquencies may increase 50 percent. Instead of \$20,000,000 we may end the year 1933 with an uncollected tax bill of \$30,000,000." (City Record, April 1, 1933, page 292).

The large increase in tax delinquencies reflects the general decline in the tax-paying ability of the community. It reflects particularly the fall in rentals from residential, business and industrial properties.

The effect of increasing tax delinquency upon each year's financing is evidenced by increasing "cash deficits" (deficiencies of actual below estimated cash receipts). While such deficiencies are not true deficits, they are important indications of the City's increased difficulty in carrying on current financing and the resultant need for more temporary borrowing. "Cash surpluses" (S) and "cash deficits" (D), as of December 31, are indicated below for each of the last five years:

<u>Year</u> <u>(Dec. 31)</u>	<u>Surplus (S)</u> <u>Deficit (D)</u>	Surplus  or Deficit  (Millions)
1928	\$2,786,378 S	
1929	884,636 S	
1930	1,629,380 S	
1931	2,494,601 D	
1932	10,185,674 D	

Future city budgets. When the budget was passed in 1933 it showed a considerable reduction, about half of which arose from some \$2,200,000 savings in salaries. Borrowings for current welfare expenditures will undoubtedly cause this budget reduction to be practically wiped out by the end of 1933. This is an especially unfortunate development, perhaps the first of its kind in the entire history of Boston. Increased retirement costs on the new welfare debt will now occur over a period of years.

As industrial recovery progresses, it is to be expected that there will occur a decrease in relief expenditures which are now very large (estimated at a figure in excess of \$1,000,000 monthly for 1933). The recovery



process, however, is already bringing with it increased prices which are raising the costs of supplies and materials for all city services. Moreover, maintenance costs which have been deferred during the depression, must be made up in future budgets and undoubtedly more equipment must be purchased to replace equipment now badly worn. If increased costs of living result from the recovery drive, there will be pressure to have city salaries raised to former levels, thus eliminating much of the present economy in personnel costs.

As is indicated elsewhere (see Huntington Avenue Subway discussion) the deficit of the Boston Elevated has increased at an alarming rate and the city's share will be a considerable item for some time to come. This year, for the first time, the city is also called on to defray a substantial part of the rentals of the Governor Square subway extension from its tax levy, and the cost will recur in the future. There is also a strong probability that the city tax levy will be burdened with additional recurrent deficits when the \$19,000,000 East Boston Traffic Tunnel is opened next Summer.

In brief, a number of unfavorable factors may be expected to outweigh any savings in relief expenditures from improved economic conditions.

Debt

Growth of debt. The following tabulation shows the rapid growth of Boston's net debt for all purposes. These figures include debt both inside and outside the debt limit.

<u>Dec. 31</u>	<u>City</u>	<u>County</u>	<u>Water</u>	<u>Rapid Transit</u>	<u>Traffic Tunnel</u>	<u>Total</u>
1923*	\$50,079,000	\$1,259,000	\$267,000	\$33,897,000	--	\$85,502,000
1924**	49,299,000	1,166,000	250,000	34,271,000	--	84,986,000
1925	53,882,000	1,084,000	1,138,000	35,268,000	--	91,372,000
1926	55,974,000	993,000	1,244,000	37,862,000	--	96,073,000
1927	54,113,000	967,000	1,227,000	40,887,000	--	97,194,000
1928	56,239,000	1,116,000	998,000	42,524,000	--	100,877,000
1929	57,262,000	1,237,000	768,000	42,860,000	\$50,000	102,177,000
1930	61,494,000	1,223,000	538,000	43,192,000	4,050,000	110,497,000
1931	65,071,000	1,119,000	488,000	45,626,000	7,050,000	119,354,000
1932	66,311,000	994,000	438,000	46,200,000	13,000,000	126,943,000

*January 31, 1924 (End of fiscal year, 1923)

**January 31, 1925 (End of fiscal year, 1924)



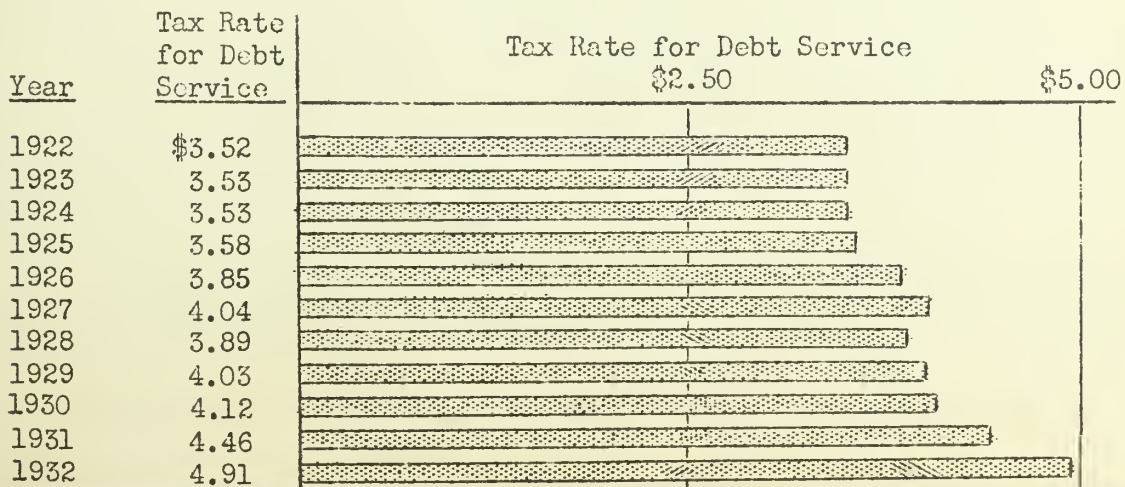
The city's debt increase is largely due to Boston's active construction program in recent years. The largest single project, the East Boston Traffic Tunnel, has been under construction during the past three years and will be opened next year.

Although the trend of net debt in the last decade has been constantly upward, until recently it was accompanied by rising assessed valuations. Certain conservative financial policies, such as the pay-as-you-go plan for some of the city's capital outlays, a tendency on the part of city officials to shorten the term of certain new issues of bonds, and the 10% "cash down" requirement imposed by the Legislature on borrowings outside the debt limit, contributed to keeping the city debt at a low figure in the past.

In more recent years, however, the trend in assessed valuations at first levelled off and is now declining; the city has abandoned the pay-as-you-go policy; and the Legislature has discontinued the 10% requirement. In addition, there has occurred a rather rapid rise in so-called "self-supporting" debt, which, it is becoming more and more evident, will not fully pay its own way.

Aside from considerations such as these, the record shows that Boston's total net debt has increased \$29,000,000 (30.6%) during the past five years.

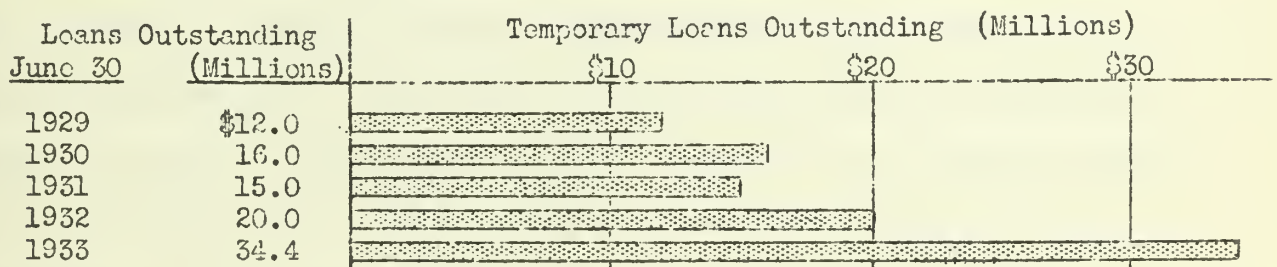
Debt service charges. The following tabulation shows the annual tax rates which have been necessary during the past decade to meet debt service charges.





The tax rate for debt service has increased \$1.39 (39.5%) during ten years and \$0.87 (21.5%) during the past five years. The tax rate for debt service computed above is based only on city and county debt. Water debt is self-supporting, hence does not affect the tax rate. Interest and retirement charges on the rapid transit debt affect the tax rate indirectly by increasing the Elevated deficit. Similarly the city tax rate will be affected because of extremely probable deficits when the East Boston Traffic Tunnel is in operation, such deficits arising in part at least, from service charges on the tunnel debt. Boston's share of the charges for metropolitan debt are included in "state assessments" on the tax bill.

Temporary borrowings. Difficulties in collecting taxes during the depression have increased the amount of temporary borrowing by city officials for current financing. Temporary loans outstanding as listed in the City Auditor's Monthly Reports for June 30 have been as follows during the past five years:



It is, of course, a serious matter when temporary borrowings as of the mid-year point have increased so rapidly. Last year the amount of borrowing for the full year was exactly double that which occurred in the first half of the year; the ratio was considerably smaller in preceding years.

Summary and recommendations: new "public works" debt. The foregoing sections have indicated the serious financial status of the city on the basis of the criteria which are available.

The Mayor has proposed a \$23,500,000 program of public works under the terms of the National Industrial Recovery Act. Since the federal govern-

ment will pay 30% of the cost of labor and materials on such projects as it approves, the maximum of new debt which is contemplated would amount to approximately \$16,500,000. If 4%, 30 year, serial bonds are issued for this purpose, the total carrying charges for interest and retirement of such debt would amount to \$26,400,000 during the term of the bonds. This total would start with a debt service charge of \$1,210,000 for the first year, and decline gradually during the next three decades to \$572,000 for the last year. This program, in the opinion of the Executive Committee of the Boston Municipal Research Bureau, is far beyond that which the city of Boston can afford, and in view of the city's building program during recent years, far beyond that which should be expected of this community in making its contribution toward stimulating industrial recovery.

The Committee urges that the program be restricted so as not to involve new debt for Boston in excess of \$5,000,000. This is equivalent to a total expenditure of approximately \$7,000,000 when the 30% of federal aid is taken into consideration. The Committee believes that even this restriction of the Mayor's program of public works projects represents a more liberal position than can conscientiously be taken by many citizens who are anxious to help end the depression, but who simply cannot afford to pay the larger property taxes which must inevitably follow.

Part III

MAYOR'S PROGRAM OF PUBLIC WORKS PROJECTS

The Mayor is proposing twelve federal-aid projects, the total outlay for which would be \$23,500,000 (tabulated on page 5). Our study of the financial status of Boston and the large scale construction program of the City during recent years leads us to recommend strongly that not more than \$7,000,000 in public works should be approved for Boston. This sum would include approximately \$5,000,000 in new debt to be assumed by the City, and \$2,000,000 of federal grant.

The question is not one of extreme urgency for any of the projects, since any or all of them can be postponed. It is simply a question of the extent of participation in a national program of economic recovery which Boston may safely assume. We firmly believe that the maximum of such participation should be \$7,000,000.

The fact that so little information has been made public regarding the projects proposed, naturally makes any final decision concerning them difficult. On the basis of available data, however, we believe that the following projects would be the most advisable in a \$7,000,000 program. The list, and succeeding discussion, are arranged in order of priority of preference.

(1)	Transit and traffic relief (in lieu of Huntington Subway)	\$2,000,000
(2)	Reconstruction and repair of streets	2,000,000
(3)	Schoolhouse construction	2,000,000
(4)	Police stations	600,000
	Adjustment for items involving no federal grant (see page 57)	<u>400,000</u>
	Total	\$7,000,000

If an \$8,500,000 subway is decided on, the full limit of advisable over-all expenditures will have been used up, and expenditures for any other projects would be inadvisable. It is to be hoped that approval of a subway of extremely doubtful worth will not prevent execution of some more meritorious proposals.

TRANSIT AND TRAFFIC RELIEF

Huntington Avenue Subway

The proposed Huntington Avenue Subway is the largest project included in the public works program which the Mayor seeks permission to develop under the terms of the National Industrial Recovery Act. Of a total suggested expenditure of \$23,500,000, the Huntington Avenue Subway, as proposed by the Mayor, will involve \$8,500,000, or more than one-third.

Early history. Although consideration has been given to such a project for many years, plans to provide subway facilities for the Huntington Avenue district and the suburbs adjacent to it, did not take definite form until 1926. In that year the Division of Metropolitan Planning recommended a route to commence at Tremont Street and Huntington Avenue in Roxbury, to utilize a reserved way in Huntington Avenue to the vicinity of Opera Place, whence it would proceed eastward over private property to a widened right of way, generally parallel with the railroad tracks, to Arlington Square, and thence by a new subway to the Tremont Street Subway exit at Broadway. The cost of the subway was estimated to be \$6,400,000. The Division also discussed essentially the same route which was later authorized by the Legislature in 1932, but discarded it "as entirely impractical at the present time because of the general financial considerations which would be involved," and as more expensive than the route which had been selected.

In late 1927, the Division recommended (House Doc. 1928, No. 400) that the route start "within 2000 feet of the intersection of Huntington Avenue and Tremont Street," proceed by new construction to a point near Back Bay Station, and thence "substantially parallel to the New Haven Railroad tracks to the Broadway end of the Tremont Street Subway."

In 1929, a special Recess Commission of the Legislature concurred substantially (House Doc. 1929, No. 965) with the 1927 recommendation, except

that the route should start "near the junction of Huntington Avenue and South Huntington Avenue."

On March 16, 1931 (in accordance with section 2 of chapter 383 of the Acts of 1929) the Trustees of the Metropolitan Transit District recommended (S.Doc.1931, No. 415) two new rapid transit routes. Of these, the section of so-called Route 1 which is relevant to this discussion, was to start at South Huntington Avenue, proceed along Huntington Avenue to Stuart Street, thence along Stuart Street to Columbus Avenue and under the Common to a new station to be constructed near the Park Street Station. Although this route represented a radical departure from previous recommendations, no reasons for the change were made public.

The Metropolitan Transit Council approved the District Trustees' report on May 19, 1932 (Sen. Doc. 1932, No. 417) and authorization of this route for a Huntington Avenue Subway, starting at Gainsborough Street, a block west of Massachusetts Avenue, was enacted by the Legislature and approved by the Governor on June 7, 1932 (Chapter 306). The application of the new statute was, however, contingent on approval by the Directors of the Boston Elevated Railway, and this approval was subsequently refused on November 15, 1932. The Act of the Legislature had stipulated a cost not to exceed \$8,500,000 to be financed in the first instance by Boston alone. This contrasted with the recommendations of the Trustees of the Metropolitan Transit District in 1931 that the routes be financed by the whole Metropolitan Transit District under the provisions of Chapter 383, Acts of 1929.

The 1932 Act described above had a history which indicated that the proposal was regarded by those who framed it largely as an unemployment relief measure. The bill (Sen. Doc. 1932, No. 417) was introduced very late in the session by a communication of the Metropolitan Transit Council. The brief consideration of the bill by both houses of the Legislature was based, not

primarily on transportation considerations, but on unemployment relief. The latter question is discussed in detail below. It suffices here to point out that the solution of Boston's transit problems was attempted in a hasty, ill-advised fashion.

On December 7, 1932 (in accordance with Chapter 47 of the Resolves of 1932) a joint report of the trustees of the Boston Metropolitan District and the public trustees of the Boston Elevated Railway Company (House Doc. 1933, No. 8) recommended an alternative, less expensive route along Huntington Avenue starting at or near Gainsborough Street, and connecting with the Boylston Street subway at Copley Square to cost "under \$5,000,000." This route lies entirely on Huntington Avenue, whereas the older route turned off at Stuart Street and proceeded to a new station to be constructed near the Park Street Station. As on a preceding occasion, no reasons other than cost estimates were given to explain the change in route.

The report stated that operating costs would be decreased approximately \$30,000 per year, whereas "the more expensive Huntington Avenue plan (using Stuart Street) would effect no saving in operating costs, but would, on the contrary, probably increase such cost by approximately \$5,000 per year." Traffic congestion was pointed out as a serious matter, particularly in view of the early completion of the "super-highway" from Worcester, and the report suggested that the extension of the Huntington Avenue Subway to South Huntington Avenue therefore "constitutes not only an important rapid transit improvement but contributes materially to the solution of the traffic problem." The report discussed various other transit and traffic problems of the city and contains the statement that "of equal importance to the construction of a Huntington Avenue subway to Opera Place is the construction of a grade separation at Cottage Farm bridge by which the surface cars and vehicular traffic on Commonwealth Avenue will be carried on a different level

from the traffic from Cottage Farm bridge crossing Commonwealth Avenue." After reviewing the serious decline in operating revenues of the Boston Elevated Railway Company, the Joint Board closed with a unanimous opinion that car riders cannot pay additional fixed charges for new construction which "for the present must be paid directly by the taxpayers." This represents a decided change in point of view. Prior to this time it had been generally contemplated that additional expenses of new subway debt would be met by rental charges; but by 1932 there had developed a realization of the serious financial condition of the Boston Elevated Railway, (fully described in a later section of this memorandum) and recognition was given to the fact that the cost of a new subway would fall on the taxpayers.

The foregoing abbreviated summary has described five separate studies of the Huntington Avenue Subway problem which have been made during the past six years with divergent recommendations in each case. There has been a notable failure to present to the Legislature and to the public, in adequate detail, the essential facts with respect to the various proposals. From these frequent changes in the plan, the conclusion seems justified that thorough study has been lacking, that the approach to the problem has been haphazard, and that further study in order to establish a definite and fixed opinion, supported by adequate facts, is required to show the need of a subway, and if so the proper route which should be adopted.

Mayor's proposals. During June, 1933, the Mayor proposed a Huntington Avenue Subway "extending from Arlington Street to the Opera House," (a distance of approximately 6,300 feet via Copley Square. The Mayor probably had the slightly longer route via Stuart Street in mind but that fact was not clearly stated.) He estimated the early employment of 2,000 men, now on the Soldiers' Relief roll, for a period of from two to two and one-half years, and expressed the opinion that property values in the vicinity would increase by \$10,000,000.

He continued: "With the present low cost of materials and labor, plus the 30% contributed by the Federal government, it will be possible to build this portion of the subway for 40% less than it would cost in ordinary times." (City Record, June 17, 1933, page 673).

During July, 1933, the Legislature passed an Act (Chapter 366) enabling cities "to secure the benefits provided by the National Industrial Recovery Act." Part II of this new law relates to the construction of a subway in the City of Boston and includes the provision (Section 2) that, if the federal authorities, the State Emergency Finance Board and the Governor approve, the transit department of the City of Boston "may construct within the limits of the City a subway connecting with or being an extension of any existing subway." (See supra, page 3). No limit was placed on the subway bonds which the City could issue to pay for such a project.

Also during July, 1933, the Mayor shifted the route he had proposed during the preceding month westward so that the subway would be constructed exclusively under Huntington Avenue from Longwood Avenue to Copley Square. The new route covers the somewhat longer distance of approximately 8,650 feet, and the subway is to be built at a cost of \$8,500,000, as against \$5,000,000 for one of the two routes favored by the Mayor in 1932. He stated that 3,000 men would be employed for three years, thereby saving \$2,000,000 in Soldiers' Relief. (Newspaper reports, July 27, 1933). The Board of Directors of the Boston Elevated Railway Company approved the Mayor's proposal on August 10, 1933 by a 6 to 1 vote, Chairman Bernard J. Rothwell voting against the proposal. The two plans which the Mayor has brought forward this year overlap for the distance between Copley Square and the Opera House, or approximately 5,200 feet.

The geographical situation and the transit facilities in and around the Huntington Avenue district are indicated on the accompanying map.

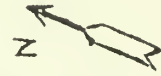


BOSTON TRANSIT
FACILITIES IN & AROUND
HUNTINGTON AVE. DIST.

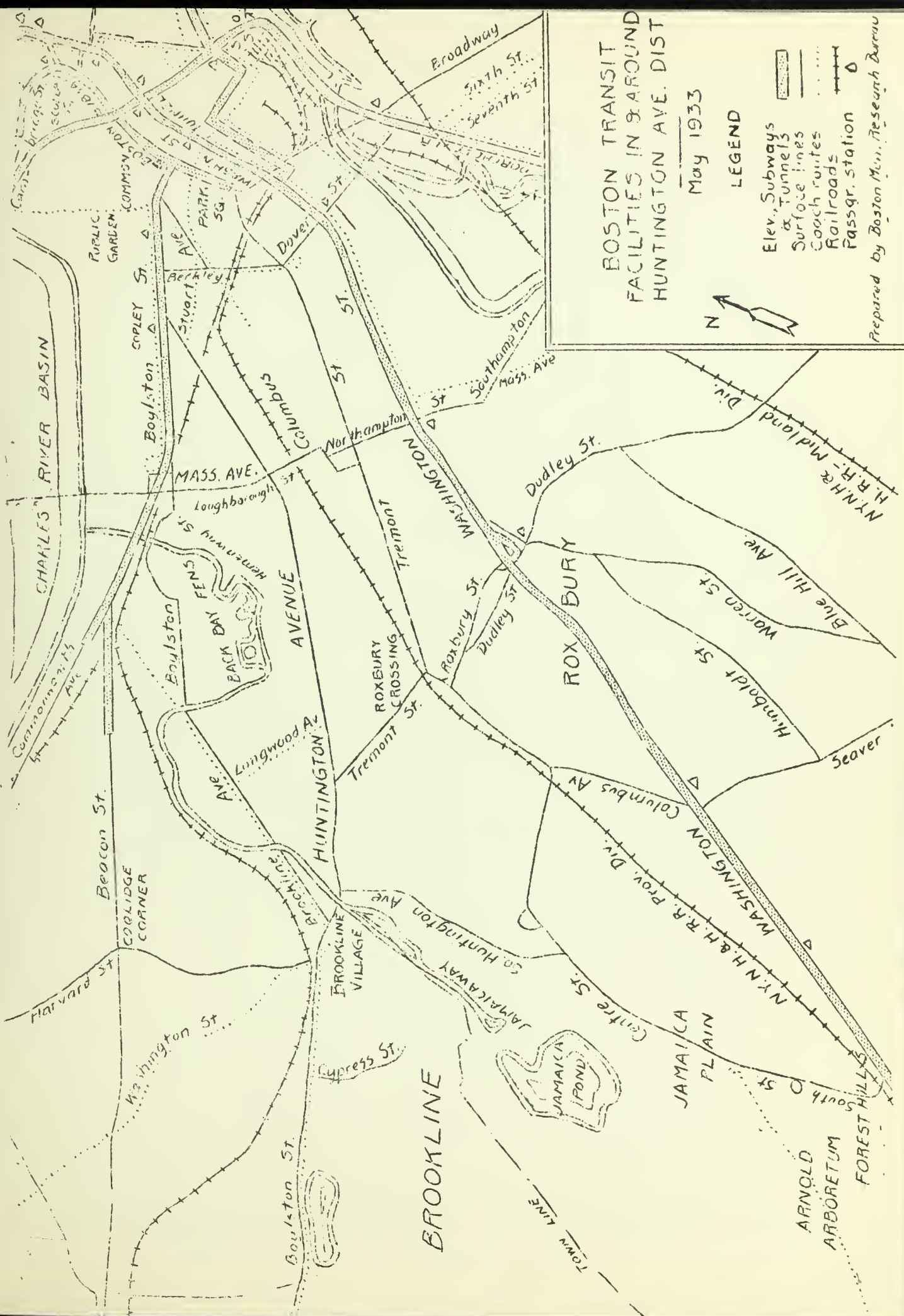
May 1933

LEGEND

- Elev., Subways
α Tunnels
Surface lines
Coach routes
Railroads
Passgr. station



Prepared by Boston Mus. Research Bureau



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Work relief. One of the most important arguments used by proponents of the Huntington Avenue Subway has been that of unemployment relief, particularly among the veterans. Unfortunately the project is not a part of a well-conceived program of work relief. It has been selected without regard to its relative necessity as compared with other city needs, and it is far more expensive a project than is necessary to provide work relief to needy veterans. A federal grant of 30% reduces the direct initial cost of an \$8,500,000 subway to the City to approximately \$6,000,000. If 50 year, 4% serial bonds are used to pay for the latter outlay, interest and retirement charges will amount to \$12,000,000, or twice the face of the new bonds issued. The Mayor has made various statements as to the amount of work relief which a subway project would provide. On one occasion he estimated a total reduction of \$2,600,000 in Soldiers' Relief disbursements during the two or three-year subway construction period.

In other words, it is proposed to spend some \$12,000,000 of city money, and \$2,500,000 of federal money in order to save Boston soldiers' relief expenditures amounting to \$2,600,000 more or less, dependent on which conflicting estimate is used (see following paragraph.) It is admitted, of course, that other elements properly enter into such a comparison -- questions of transit and traffic relief -- but these are discussed elsewhere.

The estimates of the amount of work relief which this project will provide vary greatly, and are illustrative of the vagueness which surround it. When the Metropolitan Transit Council program for \$40,000,000 in rapid transit extensions was before the Legislature, city officials asserted that it would employ from 5,000 to 6,000 men for four or five years. When the \$8,500,000 subway bill was before the City Council, the Chairman of the Transit Commission stated that the work should be completed within three years and should employ 2,500 men at its peak. He also stated that a minimum of 60% of the cost would



go toward day wages. When the 1932 Act of the Legislature (Chap. 306) authorizing an \$8,500,000 subway was being considered by the Directors of the Boston Elevated Railway, the Mayor stated that the project would provide "permanent" employment for 3,000 men for three years. When a modified \$5,000,000 plan was announced during October of 1932, the Mayor expressed the hope that "it may be possible to have at least 2,000 men at work by Christmas." On June 17, 1933, the Mayor estimated early employment of 2,000 men on the Soldiers' Relief roll for a period of from two to two and one-half years. The next month the Mayor estimated that a somewhat longer subway would employ 3,000 men for three years, thereby saving \$2,000,000 in Soldiers' Relief.

In point of fact, the Governor Square subway extension, costing \$5,000,000, employed only 1,160 men at the peak of the work, and a smaller number of men during most of the two and a half years during which construction was going on.

The number of cases on the city's Soldiers' Relief rolls averaged 2,282 monthly during the latter half of 1932, and 2,762 during the first half of 1933. A City Councillor recently stated that many of the men on the Soldiers' Relief rolls were unable to work, and that others, including some on the non-soldier welfare rolls, would therefore be given subway jobs.

While the Research Bureau has given full recognition to the need of employment at this time, it emphasizes the fact that the expenditure of public money to provide employment should not be permitted if it forces an over-burdened community to assume obligations for poorly conceived and unnecessary projects which it cannot afford. This argument naturally has great weight in the consideration of a project such as the Huntington Avenue Subway, the eventual cost of which far over-shadows the present annual burden of Soldiers' Relief.

Property values. The Mayor also anticipates a \$10,000,000 increase in property values which will yield additional tax revenues. Claims of this

type are easy to make but difficult to substantiate by facts. Some business men with stores along the Governor Square extension, completed in 1932, now declare that their businesses have suffered tremendously with the removal of the cars from the surface.

If there is any reason to expect that increased business in the vicinity will add to property values, will there be a corresponding decrease in values in those portions of the City from which business is drawn? Will the provision of an easier and speedier means of exit from Boston serve to increase the value of residential property in Brookline and Newton at the expense of the local real estate market?

Where within the limits of Boston along the route of the proposed subway is there room for large-scale housing development? Certainly not in the area on the down-town side of Massachusetts Avenue. This is occupied on one side by the few blocks between Huntington Avenue and the New Haven Railroad, on the other side by the Christian Science Church and its surrounding buildings and by the Albany Railroad yards. Certainly not in the Back Bay Fens district, permanently dedicated as a park, with the Art Museum's large holdings adjacent. The area on both sides of Huntington Avenue, including the Parker Hill area, is widely devoted to hospital purposes and is not available..

Transit considerations. It is difficult to obtain adequate authentic facts as to the improvement in transit conditions which will occur as a result of the construction of an \$8,500,000 Huntington Avenue Subway which, as has been indicated, has in the past been officially criticized as unduly expensive. It is claimed that the subway will decrease travel time between Gainsborough Street and Park Street by from five to ten minutes. It is also expected that better service will increase the use of the line, possibly at the expense of private automobiles, thereby improving transit revenues. However, no estimates

of this improvement are ventured. Finally, judging from estimates relative to suggested routes in the past, it is extremely doubtful that the construction of the subway would result in any operating savings. In fact, increases in operating expenses would appear probable.

In view of the present large annual deficits of the Boston Elevated Railway, it would be a serious matter to add this expensive subway to the system. A \$6,000,000 issuance of serial bonds permitting an expenditure of \$8,500,000 through the aid of the 30% federal grant, if on a 50-year, 4% basis, would require a carrying charge of \$360,000 the first year, \$355,200 the next year, and so on in slowly decreasing amounts until the last payment at the end of half a century would amount to \$124,800. If the terms of the bonds were shortened, annual payments would increase.

The Chairman of the Board of Directors of the Boston Elevated Railway, recently stated that ^{on} an average, but 14 Huntington Avenue trolley cars hourly are now carrying only 19,000 passengers each way daily in the winter, and 10,000 in the summer. He estimated that the number of revenue passengers must increase by 31% to pay for the proposed new subway debt, and he does not believe anything like such a result is probable. No increase in transit revenues whatsoever may result from placing the trolley system underground. More patrons may decide to use their automobiles if Huntington Avenue traffic conditions are improved. Moreover, the population of this region and contiguous Brookline is relatively sparse, as is shown by population spot maps, and the geographical surroundings, and the character of real estate development is such as to make any marked growth improbable for many years. (See supra, page 27).

An expensive ~~new~~ subway would remove an average of but 14 trolley cars per hour in each direction from Huntington Avenue, an obviously small

portion of the total traffic on this important thoroughfare. Except insofar as the removal of the private right of way of the trolley line would give added space for vehicular traffic, no relief would be provided for traffic congestion at the congested intersection of Huntington and Massachusetts Avenues.

In any discussion of a subway extending from Copley Square to Longwood Avenue, it should be borne in mind that the worst area of traffic and transit congestion has been between Copley Square and Gainsborough Street, a block west of Massachusetts Avenue. Whatever arguments there may be in favor of a relatively short subway from Copley Square to Opera Place (just beyond Gainsborough Street) do not apply to an extension from the latter point to Longwood Avenue. Even if a subway were warranted, there can be no question as to the advisability of confining it to the shorter route. The longer route would cost about \$8,500,000, the shorter route, \$5,000,000, a difference of \$3,500,000.

Large Elevated deficits. The Boston Elevated Railway is in a serious financial condition. Since 1924 the number of revenue passengers carried has declined almost continuously. The monopoly of mass transport which this utility once enjoyed has been destroyed. Competition has intensified which may well be of a permanent, possibly increasing, influence in the form of bus lines, private automobiles, and taxicabs.

Revenue miles per year have fallen, in June of 1933, to the level of 1903, thirty years ago. The number of revenue passengers declined 21.4% during the past six years (from 371,200,000 in 1926 to 291,800,000 in 1932). Despite efforts by those in control of the system to economize, the annual deficits of the past three years are very large. This serious situation is indicated in greater detail in the following table.

Operating Facts Relative to the
Boston Elevated Railway
1923 - 1932

Calendar Year	Revenue Passengers	Receipts	Deficit (D)	
			Surplus (S)	
1923	382,149,697	\$34,096,813	\$679,632	S
1924	382,888,848	34,175,319	636,696	D
1925	365,036,286	34,547,379	502,194	S
1926	371,218,401	35,481,313	482,749	D
1927	366,928,908	35,193,410	222,815	S
1928	362,005,033	34,843,147	40,051	S
1929	354,214,990	34,096,623	94,073	S
1930	342,694,905	32,510,721	1,134,639	D
1931	324,788,577	29,855,107	1,904,945	D
1932	291,753,825	26,428,494	2,569,445	D

The decrease in revenue passengers and in receipts explain in large measure the badly swollen deficits of recent years. The indications are that the calendar year 1933 will show a further increase in the annual deficit. The fiscal year ending June 30, 1932 showed an operating deficit amounting to \$1,775,339, whereas the operating deficit for the fiscal year ending June 30, 1933 had increased to \$2,753,121. The Elevated Trustees have made efforts to cut expenses to balance revenues, as witness the fact that while receipts dropped approximately \$8,800,000 in five years, cost of service has been reduced about \$6,000,000. But it has been impossible to make the whole adjustment required and the annual deficit, about two-thirds of which is now thrown on the City of Boston, is alarmingly high.

The completion of the Governor Square subway extension and the Charles Street Station recently added new capital charges for subways and an increased load on the cities and towns of the district. The general auditor of the Boston Elevated Railway Company announced on August 15, 1933, that the Boston tax rate to pay the City's share of the Company's deficit would increase from 62 cents in 1932, to an estimate of 94 cents in 1933.

Heretofore the practice has been to place unearned rentals for subway extensions in the general deficit which is borne by all the cities and

towns of the Boston Metropolitan District, with a partial exception in the case of the Governor Square subway extension. This practice is based on the fact that the benefits of such extensions are shared by all the cities and towns of the district. In the case of the Huntington Avenue Subway, the Town of Brookline in particular, and all the other cities and towns of the district in general, would share in the improved rapid transit facilities. A striking injustice of the legislation which controls the financing of a Huntington Avenue subway (Chap. 366, Acts of 1933) is the fact that in spite of the sharing of such benefits, the entire cost of unearned rentals would be placed directly on the tax levy of Boston alone.

This is the worst possible time for new commitments which will still further increase the cost of service. Instead, every effort should be directed toward substantial reductions. As a matter of fact, rising costs of supplies and materials will add to the financial difficulties of the system during the coming months, as may also demands for pay increases by the personnel of the Elevated if costs of living move substantially upward.

The Trustees of the Boston Elevated Railway in their last annual report for the year ending December 31, 1932, discussed two further matters which are of serious moment -- fixed charges and maturing bonds. The Trustees pointed out that the heavy fixed charges on the railway remain a constant charge and are a relatively heavier burden as revenues decline. Moreover, the fixed charges will probably be further increased in the near future. During the latter part of 1932, the higher interest rates made necessary in connection with the refunding of \$6,309,000 in bonds, increased annual interest charges by \$167,981. The annual report adds: "The Trustees are facing the problem of refunding a large amount of bonds (\$15,179,000 during the next three years, \$44,391,000 in the next twelve years) with no evidence at present of improvement in the financial market."

A Special Recess Committee was recently authorized by the Legislature (Chap. 49, Resolves of 1933, approved July 13, 1933) to study transit deficits, finance and management. This legislative agency will attempt to recommend steps to meet the present critical situation of the Boston Elevated Railway Company, and it is extremely undesirable that the financial condition of the system be made worse by further carrying charges for new Huntington Avenue Subway debt.

Traffic relief. Throughout the length of the proposed Huntington Avenue Subway, it is true that the removal of either tracks, or private right of way, or both, would make a wide thoroughfare of approximately 75 feet available for the freer movement of traffic. But this would give only a partial relief at the congested intersection of Huntington and Massachusetts Avenues. Moreover the "neck of the bottle" of traffic congestion would be shifted to the combination of trolley tracks and pavement extending from the point where the subway is to end at Longwood Avenue to the city boundary.

It has already been pointed out that the subway would remove only an average of 14 trolley cars per hour in each direction from Huntington Avenue. In contrast to this small number of trolley cars, a June 21, 1927 ten-hour traffic count from 8 a.m. to 6 p.m. (see 1930 Thoroughfare Plan, page 184) showed that 3,900 westbound and 4,400 east-bound vehicles were using Huntington Avenue daily. A similar traffic count on March 14, 1930 showed traffic amounting to 4,600 westbound, and 4,900 eastbound vehicles. This shows that vehicular traffic increased considerably between 1927 and 1930, and in the latter year amounted to an average of about 470 vehicles hourly in each direction, a much greater number than the figure of 14 trolley cars hourly. These figures are averages; data are not available for a comparison of rush hour conditions. The early completion of the Worcester Turnpike will probably further increase vehicular traffic. The ratio of vehicular and trolley traffic definitely indicates the need for much greater emphasis on the traffic aspect

of this problem than has heretofore been the case.

Rothwell plan. Recently, the Chairman of the Board of Directors of the Boston Elevated Railway Company brought forward a plan which has been given the designation of his name. He approaches the problem from two stand-points: (1) reducing traffic congestion at the intersection of Huntington and Massachusetts Avenues, and at Copley Square and Boylston Street, and (2) reducing costs. The plan contemplates a short tunnel to be built so that trolley cars would emerge from the Boylston Street Subway at a point between Copley Square and Exeter Street, thereby removing Huntington Avenue trolleys from Boylston Street and helping to reduce traffic congestion. Unfortunately, distances and street slopes are such that a $6\frac{1}{2}\%$ grade is necessary for the trolleys to emerge from the subway a short distance east of the Huntington Avenue bridge over the Boston & Albany Railroad tracks. It is said that such a grade is in use elsewhere on the system without damage to equipment, but it would result in somewhat noisy operation and would be much in excess of the maximum grade of 3% usually preferred by transit engineers.

Shortly beyond the bridge the trolley cars would descend to the lower level of a two-level underpass under Massachusetts Avenue. The upper level of this underpass would be used by vehicles which descend to it from short distances on either side of Massachusetts Avenue underneath the present right of way of the trolley system, thereby leaving the present pavement available for right and left vehicular turns to and from Huntington and Massachusetts Avenues. All grades with the single exception noted would be 4%.

The cost of the Copley Square tunnel would range between \$867,000 and \$1,340,000, dependent on whether buses were substituted for trolley cars during the construction period, or whether trolley traffic continued to operate overhead on special wooden supports during construction. The Massachusetts Avenue double underpass, including a passenger station and two escalators,



would cost either \$1,706,000 or \$2,589,000, depending upon the same considerations. The Rothwell plan would, therefore, involve a total estimated expenditure of either \$2,663,000 or \$3,929,000, considerably less than half of the \$8,500,000 subway which the Mayor is urging.

The great advantage of this plan would be, of course, the much lower cost than has been proposed for a continuous subway. It would serve in the same way as the longer subway in clearing up traffic congestion at Boylston Street and Copley Square, and would eliminate the bad traffic condition at the Massachusetts Avenue intersection, whereas the longer subway would only furnish partial relief at best at the latter intersection. The Rothwell plan, would, however, retain the trolley tracks on the surface throughout the remainder of the length of the street and to that extent would leave the traffic problem as it is now.

Worcester Turnpike. There is at present no reliable basis for prediction of the volume and character of traffic which will use the new Worcester Turnpike. The character of that traffic may be such that a large part of it will proceed northward and southward over Riverway and Jamaica way at the Brockline boundary. Farther from the center of Boston, Route 128 (the new circumferential highway) may remove traffic not bound for Boston proper, which hitherto has come into the City.

It might be undesirable to facilitate movement directly to the heart of Boston along Huntington Avenue prior to the evolution of plans for diffusing that traffic within Boston. The Thoroughfare Plan for 1930, for example, contemplated a generally northwest-southeast cross-town highway connecting Jamaica way, Huntington Avenue, Blue Hill Avenue and Old Colony Parkway. At that time the Worcester Turnpike development was not in the picture. It may be that a revision of this cross-town route would be a solution to the general traffic problem much preferable to any which the Huntington Avenue Subway would contribute.

One-level underpass suggested. The most sensible solution of this Huntington Avenue traffic problem would be to build an inexpensive one-level vehicular underpass at Massachusetts Avenue, and then await Worcester Turnpike traffic developments of the near future. If the completion of the Turnpike greatly increases traffic congestion, left turns could be prohibited at Massachusetts Avenue and other important intersections, and curb parking could be forbidden in the most congested areas.

The Research Bureau recognizes the advisability of action at this time, if Boston is not to lose federal aid for public works projects. For this reason it is suggested that this one-level vehicular underpass be constructed at the junction of Huntington and Massachusetts Avenues. Study may show the possibility and advisability of restricting such an underpass to the trolley tracks and two of the three lanes of traffic on either side of the street. The remaining lane of traffic adjacent to each curb, could be retained at the surface, some extra room possibly being provided by cutting a few feet off the sidewalk near the intersection. This single lane on each side of the street would serve the sidewalks of buildings adjacent to the intersection. Study should also be given to the advisability and cost of starting the descents to the underpass a sufficient distance away from the intersection so as to eliminate the need for cutting off the sidewalk immediately adjacent to the intersection.

Even if the subway tunnel is eventually found to be necessary, a large portion of the expenditure for building the underpass would not be wasted. The remainder of the expenditure would be compensated for by the traffic relief provided at the intersection up to the time that the subway is built, and by the saving involved in postponing the more expensive subway project for a number of years.

Part II of this memorandum develops the fact that not more than \$7,000,000 should be expended for a public works program. Of this amount

it is not possible, with the data now available, to substitute a definite cost estimate for the one-level underpass which is urged in lieu of a Huntington Avenue subway. The Research Bureau suggests that not more than \$2,000,000 be allocated for specific transit and traffic relief projects. A one-level vehicular underpass at Huntington and Massachusetts Avenues, would leave a large surplus available from the \$2,000,000, and further study should be given to the construction of underpasses at other congested intersections, elsewhere on Massachusetts Avenue for example.

Summary and recommendations.

1. The need for a subway on Huntington Avenue has not been demonstrated from the standpoint of transit, traffic or unemployment relief.
2. Many varied proposals for a subway have indicated a woeful lack of real planning.
3. Neither the Boston Elevated Railway nor overburdened property owners in Boston can afford the cost of this project.
4. The Rothwell plan for a tunnel at Copley Square, and a two-level underpass at Huntington and Massachusetts Avenues, could be constructed at less than half the cost proposed for the Huntington Avenue Subway, and has the advantage that it relieves traffic congestion at the important Massachusetts Avenue, and the Boylston Street intersections.
5. A one-level underpass should be constructed at the intersection of Huntington and Massachusetts Avenues, and traffic regulations should be made more drastic. Even if the completion of the Worcester Turnpike greatly increases Huntington Avenue traffic, these remedial steps would go far toward taking care of traffic congestion.
6. Even if a Huntington Avenue Subway were warranted, no justification would exist for extending it for a greater distance than from Copley Square to Opera Place.

7. The Research Bureau urges, (1) that the subway proposal be dis-
approved, and (2) that not more than \$2,000,000 be expended for specific transit
and traffic relief projects. This sum will permit the construction of several
one-level underpasses at congested street intersections.

RECONSTRUCTION AND REPAIR OF STREETS

The Mayor's program of public works projects includes a proposal for
the expenditure of \$2,000,000 for the reconstruction and repair of streets. Or-
dinarily the Research Bureau would oppose such a request. Under normal econom-
ic conditions the cost of such work should, in accordance with the best finan-
cial practice, be defrayed from current tax levies, since it is a recurrent ex-
pense. Moreover, in time of depression such work can be easily postponed for
a year or two in anticipation of the return of a more adequate tax-paying ability
of the community.

Nevertheless, if Boston is to make a contribution to the broad nation-
al program of public works construction, a conservative amount of street recon-
struction has elements in its favor. The Research Bureau believes that, in com-
parison with the other projects in the list before this Board, it is second, in
order of preference, to the alleviation of transit and traffic conditions along
Huntington Avenue as has been recommended. Our reasons for this stand are as
follows:

1. The normal requirements of the next two years can be anticipated
and financed this year. At present there are some 660 miles of accepted streets
in the City of Boston. Types of surfacing on these streets, as of January 1,
1932, are classified below. The proportion of the various types has not mate-
rially changed since this computation.

<u>Type of Pavement</u>	<u>Area (Sq. Yds.)</u>	<u>% of Total Area</u>	<u>Miles</u>	<u>% of Total Length</u>
Bituminous Macadam	2,541,000	20.2	127.3	19.3
Granite Block	2,445,000	19.4	92.1	14.0
Non-Bituminous Macadam	2,589,000	19.0	173.4	26.3
Asphalt Concrete	2,273,000	18.1	111.7	16.9
Sheet Asphalt	2,097,000	16.7	111.7	16.9
All Other Types	<u>825,000</u>	<u>6.6</u>	<u>43.8</u>	<u>6.6</u>
	12,570,000	100.0	660.0	100.0

Even if the age and condition of the various areas of street surfacing were uniform, there would still be difficulty in attempting an estimate of the annual recurrent expense involved in the reconstruction and repair of the pavements of Boston. The useful life of bituminous, as against non-bituminous pavements varies greatly. Sheet asphalt is normally assumed to have an average life of between 15 and 20 years. Other types of bituminous pavements, such as bituminous macadam, must be resurfaced at shorter intervals. Suffice it to say that Boston's investment in large areas of improved street pavement requires a substantial recurrent expenditure if that investment is not to be wasted.

Expenditures for pavement work in Boston have averaged in excess of \$1,000,000 annually during recent years. The following tabulation shows the annual appropriations and loans specifically allocated to such work since 1925. The tabulation does not include expenditures for city work by regular departmental forces, nor a number of other minor expenditures which would not materially alter the conclusions drawn from the tabulation.

Special Appropriations and Debt Issued for
Reconstruction and Repair of Streets
1925-1932

<u>Year</u>	<u>Budget Appropriations</u>	<u>Debt Issued</u>	<u>Total</u>
1925	\$204,000	\$500,000	\$704,000
1926	950,000	---	950,000
1927	266,000	500,000	766,000
1928	725,000	---	725,000
1929	750,000	---	750,000
1930	1,000,000	1,200,000	2,200,000
1931	---	1,800,000	1,800,000
1932	---	680,000	680,000
	<u>\$3,895,000</u>	<u>\$4,680,000</u>	<u>\$8,575,000</u>

During the first six months of 1933 the City expended \$102,419 for the reconstruction of streets, and there was available an unexpended balance of \$250,572 on June 30, 1933.

It is clear from past experience with hard-surfaced streets in the city, that the expenditure during the next twelve months of \$2,000,000 in addition to the \$250,572 of unexpended funds now available, should provide for the normal needs for reconstruction and repair of streets during at least 1934 and 1935. The possibility of speeding up the normal pavement reconstruction program of the City justifies the inclusion of the project in a construction program under the National Industrial Recovery Act.

It is urged, however, that federal-aid be extended contingent upon a clear understanding that the usual pavement expenditures of Boston during the years 1934 and 1935 will be eliminated because of this \$2,000,000 program. With such an understanding there should be no justification for doing other than emergency work during those years.

Inasmuch as hard surface pavements have a relatively short life and therefore cause recurrent expenditures, it is also urged that a limit of ten years be set as the maximum term of bonds to be issued.

2. Manual labor constitutes an unusually high proportion of the cost of work of this type. Although widely varying conditions on many types of pavements in different states of repair, prevent any definite estimates as to the proportion of labor costs involved, it is certain to be high. Relatively little machinery beyond rollers, mixers, and trucks is required. The removal of old surfacing and the spreading of new surfacing is almost purely a labor matter. Engineering, administrative, and other overhead costs are relatively small; no costs of land taking, rights of way, leases, or easements are involved.

3. It should be possible to begin such work speedily, and to maintain fairly uniform employment during the period of construction.

4. Maintenance costs of future years should be decreased by reconstruction and repair at this time. Such a factor makes this work preferable to those types of public works which would tend to increase future maintenance costs. Repairing and reconstructing by city forces and by contract should thereby be decreased in the next few years.

5. The flexibility and completeness of such a project are attractive features. This project is in reality a grouping of numerous smaller projects, thus affording flexibility in extent of work to be carried on, to insure keeping within the estimates of the total costs. The resulting construction would be complete and would not, in contrast to some types of public works, necessitate further expenditures for related improvements.

6. Welfare expenditures should be reduced. Because of the high proportion of manual labor involved, the employment of men now on the city's welfare rolls would be feasible. In this connection it should be pointed out that a maximum reduction in welfare expenditures will be assured by requiring first, selection for street work of those welfare recipients who are receiving relatively large monthly allowances, and second, the remaining persons receiving public aid. This method has been used in at least one other large city, St. Louis, to obtain the greatest public benefit from available government work programs.

Need for supervision. We strongly urge this Board, however, to withhold approval of any loans for streets until an examination can be made of the individual streets which the City proposes to repair or reconstruct, and the type of paving specified for each street. No such information has yet been made public.

We stress the advisability of the submission of the list of streets and pavement types because of the necessity of preventing any continuance of

the waste and extravagance which has characterized much of the paving done by the City in recent years, as shown by numerous reports of the Boston Finance Commission.* According to the Commission's reports, Boston has been spending hundreds of thousands of dollars more than is necessary for its paving. Chief sources of waste and extravagance, as given by the Commission, are (1) the payment of prices for comparable types of paving far beyond those paid in other cities, and (2) failure to lay the type of paving which is best suited to the character of traffic on the street, the grade of the street, and the degree of development represented by abutting structures. Examples have been frequent of the laying of very expensive types of pavement on streets with little traffic and little abutting development.

If assurance can be given that these mistakes of the past will not be repeated, the Research Bureau believes that the expenditure of \$2,000,000 on street reconstruction would be justified in a total program of \$7,000,000.

Street hazards and sidewalk congestion. In connection with this whole question of street reconstruction and repair there is an allied matter of street accidents to both pedestrians and vehicles which is also germane to the discussion of traffic congestion included in the preceding discussion of transit and traffic relief. As motor vehicles have grown to be so great a problem in city transportation, under-emphasis has been given, at least in some quarters, to the need of protecting and facilitating the safe passage by pedestrians across wide arterial streets.

The accident records of a number of important street intersections

*Examples may be found in the annual report of the Commission for the year 1931 (Vol. XXVII) pages 19-36, and pages 47-55; see also the annual report for the year 1932 (Vol. XXVIII) pages 30-32, and pages 46-67; and the report of the Consulting Engineer of the Commission relative to paving work in 1932, City Record, May 6, 1932, pages 442-444.

in Boston show the clear and definite need for study and correction of the conditions now existing. In some instances careful examination of the problem may point to the advisability of installing safety islands. In other cases, such questions as a geographical lay-out which causes lanes of traffic to intermingle, the presence or absence of traffic signals, and poor visibility at the intersection may cause other solutions to be adopted. The trend seems to be toward the installation, wherever sufficient roadway space is available, of a strip of some sort down the center of the street, thereby segregating traffic into two major channels of movement. It is believed that this method not only reduces the hazards of vehicular travel, but protects the pedestrian.

There are also a number of sidewalks in the city which are too narrow for the number of pedestrians using them during the busy part of the day. Merchants undoubtedly suffer a certain loss of business under such conditions, and vehicular traffic is also impeded when pedestrians venture into the street despite the danger involved. This problem merits the same type of careful study which is suggested in the case of hazardous intersections.

The Research Bureau urges city officials to speed up studies and plans for improving conditions at hazardous intersections and on congested, narrow sidewalks in order that approval may be obtained for the use of a part of the \$2,000,000 program of street reconstruction and repair to correct those conditions.

Summary and recommendations.

1. The city has been expending about \$1,000,000 annually in recent years on pavement work.
2. It is suggested that normal pavement requirements for the years 1934 and 1935 be cared for by a \$2,000,000 program of street reconstruction and repair at this time. City bonds to pay for these expenditures should have a maximum term not exceeding ten years.
3. Much manual labor is required for pavement work. The maximum

reduction in welfare expenditures of the city would occur if such work is made available to those welfare recipients who are now receiving the largest monthly allowances.

4. The numerous critical reports of the Finance Commission showing waste and extravagance in local paving work indicate the need of careful scrutiny in the selection and execution of individual pavement projects by federal and state authorities.

5. Study of pedestrian and vehicular accidents at hazardous street intersections, and of relief for congested, narrow sidewalks should be hastened, in order that part of the \$2,000,000 may be utilized to eliminate the most dangerous points or crowded condition.

NEW SCHOOLHOUSE CONSTRUCTION

The Mayor's \$23,500,000 program includes projects for a million dollar high school in West Roxbury and a million dollar intermediate school in South Boston. Approval of the projects and of their inclusion in the program was recently voted by the Boston School Committee.

General problem. The two projects, although both for new school construction are basically different in character. In the case of West Roxbury which is a growing region in home construction and population, it is proposed to give high school facilities to a region now without a high school. In the case of South Boston, a region with declining population and valuations, it is proposed to construct an intermediate school to permit a readjustment of present school facilities on a more efficient basis. Of the two, the West Roxbury project appears to have the greater merit at the present time.

Normally we would oppose borrowing for either project. As in the case of street reconstruction, the construction of school buildings is a recurrent expense, and as such, should be financed on a pay-as-you-go policy in more pros-

perous times, and postponed in time of depression. However, as a portion of a \$7,000,000 program of cooperation with the broad national drive for recovery, both projects appear preferable to the other items in the Mayor's \$23,500,000 program which are discussed in subsequent sections.

Because of the basic differences in the projects, they are given separate treatment in this discussion.

West Roxbury High School

History of the project. Community agitation for a West Roxbury High School has occurred for at least fifteen years. The Washington Irving Intermediate School, begun in 1920, was originally intended for an intermediate and high school (Grades VII to XII, inclusive). In spite of the addition of three units to the building between 1921 and 1927, the intermediate attendance grew so rapidly that the building could not be used for high school pupils also.

When it became apparent, about 1927, that the Washington Irving building could care for intermediate pupils only, renewed impetus was given the movement for a high school. On April 2, 1928, an appropriation of \$100,000 was made by the School Committee for purchasing land and making plans for a new intermediate or high school in West Roxbury. That appropriation has neither been used nor rescinded.

Four years ago a special Survey Committee, of the Boston Public Schools surveyed the building needs of the School system, and recommended the construction of a Roslindale-West Roxbury High School as soon as four other projects were initiated and completed (School Doc. No. 12, 1929, page 82). Two of the four projects, whose immediate construction was urged, are now under construction; the two remaining (a new central high school for Girls', and an addition to the Teachers' College group to free the Patrick A. Collins building for the Girls' Latin School) have not been undertaken. Although the community groups in West

Roxbury have constantly urged new high school buildings, the School Committee has from time to time considered utilization of existing buildings for high schools and the construction of a new intermediate building. For example, in 1932 the Committee proposed making the Jamaica Plain High School a boys' High School, and the Washington Irving Intermediate School a girls' High School, and constructing a new intermediate school.

The chief advantage of this plan lay in the fact that while high school buildings ordinarily cost the City about \$1,000,000, intermediate buildings can be built for \$750,000. Disadvantages of the plan as depicted by West Roxbury community organizations, were: (1) that a new intermediate school would have drawn so heavily on another intermediate school in West Roxbury (Robert Gould Shaw Intermediate School) that the latter school would have been in the nature of an expensive "white elephant" in the system, (2) that it involved breaking up a well-functioning intermediate unit in West Roxbury (Washington Irving Intermediate School), (3) that it failed to provide for a boys' high school in the region, and (4) that the plan met the united opposition of the community.

In view of these objections the School Committee again considered a new high school building. In 1933 it sought to introduce a bill in the Legislature authorizing the borrowing of a million dollars for that purpose. Efforts in that direction were presently stopped because of such a bill's small chance of passage.

Need for a High School. The need for a new high school involves the following considerations:

1. Distance from other high schools. More than 2700 high school students in the West Roxbury region now attend schools in other parts of the city. Chief among these other schools are Jamaica Plain High School, Hyde Park High

School, and the "central" high schools -- English High School, Girls' Latin School, and Public Latin School. An approximate idea of the distances these pupils travel (and at their own expense) may be gained from the facts that Hyde Park High School is roughly two miles from central West Roxbury; Jamaica Plain High School, three miles; and the "central" high schools, five to six miles. Traveling such distances, particularly by the slow means of transit available, is burdensome.

2. School population justifies a high school. High school attendance by pupils from the general region composed of West Roxbury, Roslindale and that portion of Jamaica Plain south of the Forest Hills Station, was divided among ten other schools last November as follows:

	<u>Pupils</u>		<u>Pupils</u>
Jamaica Plain High School	834	High School of Commerce	179
Hyde Park High School	316	Memorial High School for Girls	171
English High School	263	Mechanic Arts High School	152
Girls' High School	126	Girls' Latin School	242
Public Latin School	238	Miscellaneous Schools	<u>249</u>
Total Attendance			2,770

It is true, of course, that if a new high school is constructed, many of these pupils would continue to attend other schools because of tradition, special courses, or supposed advantages in instruction. It might even prove advisable to require those pupils residing in the southern portion of Jamaica Plain, and attending Jamaica Plain High School, to continue to attend there. This requirement would apply to some 286 pupils. If only half of the 2770 pupils listed in the above tabulation should decide to attend the new school, an estimate which appears very conservative, an ample attendance for efficient operation of a new high school would exist.

3. Future growth of West Roxbury. West Roxbury is the largest of the traditional regions in the city. It has the most land available for new con-

struction, the highest proportion of home ownership, and the next to the lowest density of population. While it is difficult to give definite figures for growth in population, since the federal census tracts do not in all cases coincide with the traditional regional boundaries, the general region is leading all others in population growth.

This growth is further indicated by the large proportion of the construction of residential buildings in Boston in recent years which has occurred in this region. For example, while the total valuation of real estate in the city last year showed a net decline of \$60,964,000 from the 1931 figure, four wards showed actual increases as follows:

<u>Ward No.</u>	<u>Region</u>	<u>Gain in Valuation</u>
20	West Roxbury, proper	\$1,256,000
18	Hyde Park	271,400
19	Jamaica Plain	156,000
11	Roxbury.	213,000

All of the wards tabulated, with the single exception of Ward 11, are confined to West Roxbury proper and contiguous wards. It will be noted that all of the gains in valuation throughout the city, with the exception of the gain in Ward 11, were confined to this general region. There appears to be an important shifting of population from some of the older, more congested areas of the city, such as Charlestown, South End, and South Boston, to the outlying wards. This, of course, would result in an increase in population in such areas as West Roxbury independent of any increase or decrease in the population of the city as a whole. Such population shifts are obviously important in the location of new schools.

4. Relief of congestion in other schools. The construction of a high school in West Roxbury would tend to alleviate whatever crowded conditions exist in the schools now accomodating pupils from that region. In the absence of any

definite and comprehensive study of the degree of such overcrowding in recent years, the extent to which conditions demand relief cannot be definitely ascertained at this time. General information available, however, indicates the need of some relief at the present time in Jamaica Plain High School, Hyde Park High School, and two or three of the "central" high schools. A West Roxbury High School would tend to remedy those conditions.

South Boston Intermediate School

History of the project. The construction of an intermediate school in South Boston was considered by the School Committee in the formulation of the 1929 school budget. The project was dropped, however, after a report of the Board of Apportionment to the School Committee, which stated that the project was inadvisable at that time. This Board, after stating that South Boston needed two intermediate schools, recommended exclusion of the project from the budget because of (1) the high cost of land for a site, (2) the fact that South Boston High School still had available accommodations for additional pupils, and (3) "pressure on land and building budgets" from other directions.

Later on in the year, a special Survey Committee of the Boston Public Schools, after a survey of building needs, included two intermediate schools for South Boston in a list of recommended projects but only after four other schools of immediate importance had been built (School Doc. Number 12, 1929, pp. 82-83). The four schools of immediate importance have been constructed.

Need for an intermediate school. The need for an intermediate school involves the following considerations:

1. Consolidation of districts and schools. The chief question as to the proposal for an intermediate school in South Boston depends upon the extent to which a reorganization of the school system in the region would be affected by

the construction of a new building. In this region, which has a declining population, a number of old and small elementary school buildings (30 to 65 years old), and a superfluous number of elementary districts, consolidation of districts and schools should be a source of economy and simplified administration.

Building a new intermediate school would relieve elementary schools of Grades VII and VIII, and in some cases, Grade IX. It should be practicable, then, to abandon a number of very old buildings, eliminate at least eight portable buildings and greatly decrease the number of elementary districts. One adequate intermediate building would efficiently house all intermediate pupils of the region except possibly those from the west end of South Boston. If the population of the region continues to decline, complete concentration of the pupils in the new school will be feasible.

As stated by the School Survey Committee of the Boston Finance Commission in 1931, "In South Boston -- the total number of pupils could today be accommodated in one intermediate and four elementary schools, without exceeding for any elementary district the numbers of several of the present eight districts, or for the intermediate school the number in several of the new intermediate schools, while the population of the section is steadily shrinking." (Report of the Committee to Investigate the Methods and Administration in the Boston Schools, 1931, pp. 90-91)

2. Extension of the junior high plan. South Boston, as the only general region in the city now lacking special intermediate (junior high) schools, offers a good location for the extension of the junior high plan on which the City embarked some time ago. The pupils in Grades VII, VIII, and IX, numbering 2371 last October 1, now attend elementary schools which offer instruction in those grades. In addition, approximately 50 ninth grade pupils are attending South Boston High School.

The proposed new junior high school would comfortably house about 1,850 of the pupils; the remainder could be cared for in South Boston High School, and in the elementary schools with the best facilities for intermediate work. It can readily be seen from the foregoing that a sufficient enrollment exists in the region to fill a new intermediate school. If the population of South Boston continues to decline, it may be possible to house all intermediate pupils in the special intermediate school. Thus an entire region of the city would be brought under the junior high plan.

General advantages and disadvantages of both projects. Specific advantages in the case of each of the two projects have been discussed. In addition, some of the general advantages which would result from the construction of the two schools are:

1. The provision of better educational facilities in West Roxbury and South Boston.
2. The anticipation this year of almost certain building requirements of the near future. Expenditure of the \$2,000,000, however, should be understood as an anticipation of at least one year's normal building needs, and only emergency construction should be initiated in 1934.
3. The relieving of unemployment in the building trades.
4. The construction of projects forming a portion of a broader program of future school building construction.

There are, however, in comparison to some other types of projects, two general disadvantages connected with these two projects, as follows:

1. Both projects as now planned involve land takings, an element which neither provides work, now comes under the 30% federal grant. While this item should not be a large part of the total cost of a high school in West Roxbury (the 1928 appropriation of \$100,000 should be sufficient) it has been estimated that it will amount to approximately one-fourth the total cost of the inter-

mediate school in South Boston. For that reason we urge, particularly in the case of the South Boston project, that every effort be made to find city-owned land suitable for the purpose before any land taking is carried on.

2. Construction of new school buildings will undoubtedly add to maintenance costs of the future, and probably will increase the cost of instruction also. We urge that, to partially offset this, school officials be required to announce definite plans demonstrating the extent of economies which can be accomplished by a reorganization of school facilities in South Boston upon completion of a junior high school building there.

Summary and recommendations.

1. The present and future school needs of growing West Roxbury justify the construction of a high school.

2. The construction of a junior high school in South Boston should permit of readjustment of school plans in that region on a more efficient basis.

3. General advantages of the two projects are the provision of better school facilities, the anticipation of building needs of the near future and the relieving of unemployment in the building trades.

4. General disadvantages are the violation of the pay-as-you-go policy, the cost of sites, and the increase in maintenance costs.

5. While construction of the two schools could be postponed, they are preferable to the subsequent projects discussed in this memorandum.

POLICE STATIONS

The Mayor's program of public works projects includes an item of \$600,000 to be used for the construction of police station houses. The Police Commissioner indicates that this sum is to be devoted to the construction of three new station houses at approximately \$200,000 each, -- one station house at a new and central location which will consolidate Station Houses 9 and 10 of Roxbury, and the other two to replace old Station Houses 11 (Fields Corner, Dorchester) and 17 (West Roxbury). The Commissioner states that he would prefer to improve the signal system of the department with any funds which are made available, rather than construct station houses.

Station house construction. The consolidation of Divisions 9 and 10 is a desirable development supplementing other recent consolidations. It should reduce upkeep and overhead, and create larger, more effective units for police work. Such consolidation should help reduce Boston police expenditures, which are now higher in proportion to population than any other large city in the United States. Boston, which has an area of 47.8 square miles, now has 16 divisions, whereas Detroit with 139.0 square miles and Los Angeles with 447.6 square miles have 10 and 14 divisions respectively. Baltimore with approximately the same population as Boston, but with more than twice the area (91.8 square miles) has only eight divisions. Police experts agree that these larger districts are satisfactory and economical.

These few facts show the possibility of consolidation of divisions in the interests of economy. Along with consolidation, however, should go a program of improving the communications system of the department, which is discussed below.

A proper program of consolidation should be based on a statistical record, not now available, showing the busy points of police activity. Although

such statistical analyses are not available at this time to indicate the advisability of combining Divisions 9 and 10, the consolidation seems advisable.

Consolidation of Divisions 9 and 10 does not, however, necessarily require the building of a new station house. The present buildings are only about a mile apart, and while old, are of substantial brick construction. It may be feasible to use one or the other as a consolidated station, thereby making available for improvement of the communications system the funds which would otherwise be used for construction purposes.

The rebuilding of Station House 17 in West Roxbury presents another problem. This is an old frame building, formerly a club house, which has been used by the police for many years. In view of the fire risk, it should probably be replaced, unless such replacement can be avoided by consolidation with another division.

The consideration of division consolidations should be carried further than has thus far been the case.

The general development of patrol work in other cities, particularly in outlying residential districts, is away from foot patrols and toward motor patrols. Bruce Smith, one of the foremost police authorities of the country, made such a recommendation a few years ago for the quiet residential districts of Kansas City, Missouri. Other cities have been following this practice also. If motor patrols eventually become dominant in policing the outlying residential districts of Boston, as we believe they should, a new Station House 17 in the quiet residential district of West Roxbury would be of relatively little use.

Station House 11, at Fields Corner, Dorchester, is an old, but serviceable brick building. Replacement of the structure would be much less justified than at the other locations which have been discussed.

Communications system. The signal system of Boston's Police Department was originally constructed more than forty years ago (under Chapter 402,

Acts of 1888). Except for the addition of teletype service, the original installation was not changed materially until 1930, when obsolete and defective cables were removed in a comparatively few divisions.

In May of 1932 the Massachusetts Institute of Technology made a detailed report after a survey of the status and needs of the City's system of police communications. The report, which is briefly summarized below, was submitted to the Mayor, who urged the City Council to appropriate \$300,000 to carry out its recommendations. The City Council refused to do so and appropriated only \$75,000 for a radio system. The Police Commissioner, in commenting on this reduced appropriation, said: "As the basis of any proper signal system must be the cable and wires before radio can properly operate, that amount of money was insufficient."

The report of the Massachusetts Institute of Technology described the system of police communications which was considered necessary for Boston including (1) proper interconnection with the private lines of the telephone company, (2) a set-up of patrol boxes so equipped that visual "flash-light" signals may be given to policemen on foot patrol by officers at headquarters, or by civilians who pull a hook on patrol boxes thereby calling nearby policemen to their aid, (3) one-way radio equipment to broadcast to radio police cars, and (4) radio transmitters and receivers serving harbor police boats. "The modern addition of 'citizen's call' and 'officers' recall' features to the patrol boxes --- enables signalling both to and from the patrolmen instead of only from them. (This enlargement of functions) makes a different type of cable desirable."

Estimates of the cost involved in doing the work indicated above, excluding radio equipment and a certain amount of cable replacement "that will be needed before many years have passed," amounted to \$255,000. The low cost of

metals caused a further recommendation to complete the replacement of cable at an additional cost of \$90,000. These costs amount to a total of \$345,000. In addition, the City has already appropriated \$75,000 for radio equipment, slightly more than the sum recommended for this purpose.

The Police Department has declined to accept the one-way radio recommendation as it believes that such systems are "obsolete," and will use a two-way system. It is not proposed here to undertake a discussion of the possible costs and other phases of this extremely recent technical development. It may be pointed out, however, that if two-way radio cars are used extensively in outlying, sparsely settled districts, the number of improved "flash-light" patrol boxes and circuits installed in those regions would not need to be as large as would otherwise be the case.

Summary and recommendations.

1. The Mayor's program provides for the construction of three new police station houses at \$200,000 each, -- Number 11 at Fields Corner, Dorchester, Number 17 at West Roxbury, and one new station to take the place of Station Houses 9 and 10 which are to be consolidated.

2. This program should at least be reduced so that not more than two station houses are constructed through abandonment of the proposed construction of a new Station House 11. This would make \$200,000 available for improving the police system of cables and patrol boxes.

3. A better plan would be to build but one new station house costing \$200,000, and complete the work of the system of police communications, at a cost of some \$345,000 less recent expenditures for this purpose from regular police budgets.

4. If two-way radio cars prove satisfactory and are used extensively in outlying, sparsely settled districts, the number of improved "flash-light" patrol boxes and circuits installed would not need to be so large as would otherwise be

OTHER PROJECTS

The foregoing sections of this memorandum (Part III) have approved, in order of priority of preference, four of the twelve projects included in the \$23,500,000 program proposed by the Mayor. These four projects involve the expenditure of approximately \$6,600,000.

The available criteria indicating the financial status of Boston's city government, and the recent active construction program of the City have caused the Research Bureau to urge (Part II) a maximum overall expenditure of \$7,000,000 on new federal aid projects in Boston. This maximum would necessitate \$5,000,000 of new city debt if the federal government reimbursed a full 30% of the outlay. Actually, the percentage of contribution will be somewhat smaller because the federal grant can only be applied to the cost of labor and materials, whereas the City must incur all other expenditures in full for such items as land-taking.

The latter factor will probably use up the differential between the estimated cost of the four approved projects at \$6,600,000, and total expenditures of \$7,000,000. The following brief summaries of available data relative to the remaining eight projects are therefore presented without recommendations, since no funds will be available for their execution. It may be that reductions in the final cost estimates of the four approved projects will make some of a \$7,000,000 limit available for other projects.

Sewerage construction. The second largest item on the Mayor's list of projects proposes the expenditure of \$3,000,000 for a "sewerage construction program consisting of covering brook courses in the city, including Stony Brook and its Canterbury branch in Dorchester and Hyde Park, Maywood's Brook in Roxbury, Lubeck Outlet in East Boston, Shepard's Brook in Brighton, Tenean Creek in Dorchester, and other sewerage projects."

The present city-owned sewerage system amounts to about 1170 miles of

common and intercepting sewers, and the present gross sewer debt for the system is approximately \$17,000,000. An extensive program of sewerage construction has been carried on in recent years, as evidenced by the fact that the City has borrowed an average of \$1,160,000 annually since 1924 for such work. This year \$400,000 has been borrowed for this purpose and, as of June 30, 1933, \$800,000 in additional loans had been authorized but not issued. Requests for authority to borrow outside the debt limit for covering brooks were rejected by the Legislature in 1932 and in several prior years.

Although considerable covering of brooks has been done by the city in the past, the need for such projects, particularly in the case of small brooks has never been demonstrated. (Most, if not all, of the brooks indicated in the Mayor's program are small). Reports of the Health Department do not indicate any general discharge of sewage into the brooks.

New hospital construction. Another project on the Mayor's program is the proposed expenditure of \$2,000,000 for "new hospital buildings, being the completion of the City Hospital building program." \$1,500,000 of this amount would be used for a new surgical pavilion, with provisions for complete admitting service for medical, surgical and accident cases, and for operating rooms and surgical wards; the remaining \$500,000 for new service shops, and additions to the extensive system of inter-connecting covered passageways between the buildings.

The City has been generous in its allowance for hospital construction in recent years. A total of \$6,631,000 has been borrowed for work at the Boston City Hospital, \$1,950,000 for work under the Sanatorium Division, and \$320,000 for the now abandoned Parker Hill Hospital project, or a total of \$8,871,000. The following tabulation lists the specific construction activities at the Boston City Hospital. It should be noted that about half of the total expenditure has occurred during the depression.

<u>Years</u>	<u>Unit</u>	<u>Debt Issued</u>
1925-32	Hospital building plans, etc.	\$340,000
1925-26	Maternity building	657,000
1925	Research laboratory	25,000
1926-27	Nurses' home	448,000
1927-28	New surgical building	683,000
1927-28	House officers' building	435,000
1927-29	Power plant additions	331,000
1927-30	Medical pavilion	799,000
1930	Administration building	370,000
1930-32	Children's pavilion	637,000
1930-31	South dept. remodeling	72,000
1931	Electrical distribution center	86,000
1931	Purchase of property	124,000
1932-33	Kitchen building	296,000
1932-33	Laundry building	455,000
1932-33	Pathological building	450,000
1932-33	Power plant improvements	245,000
1932-33	Tunnel for hospital buildings	66,000
1933	Burnham memorial building	<u>84,000</u>
TOTAL		\$6,601,000

As noted above, \$683,000 was borrowed in 1927 and 1928 for a new surgical building (completed in 1929) and \$66,000 was borrowed in 1932 and 1933 for tunnels. Loans authorized but not issued, for various hospital projects amounted to a total of \$541,000, as of June 30, 1933.

A May, 1933 summary of general hospital facilities in Boston shows a total capacity of 5,882 beds, including 1,628 beds at the Boston City Hospital. Boston was therefore equipped for acute service with an average of about 7.5 beds per 1,000 people as compared with a normal standard of 5 beds per 1,000 people as set by the American Public Health Association. Since the May summary, a net increase of 106 beds has been made to City Hospital accommodations.

No information is available as to the number of beds which will be accommodated in the proposed surgical pavilion to be built at a cost of \$1,500,000. Its capacity probably would not be greatly different from the 350-400 bed, \$1,400,000 surgical building which was included in a hospital program which was rejected by the 1932 Legislature (House Bill 477, 1932).

Of interest in the consideration of the adequacy of present facilities is a statement by the President of the Board of Trustees of the Boston City

Hospital to the Mayor on March 21, 1932, which in part read as follows:

"With the opening of the new Pediatric Building in the fall, 250 beds will be added to the hospital, so that we feel sure that with this number of beds, we will not have to undergo crowded conditions such as we had in the past winter." (City Council Minutes, 1932, page 111)

An additional consideration relative to a new surgical building is the bequest of the late Charles H. Tyler of approximately \$1,000,000 for the erection of a surgical building with pathological laboratories. The availability of this bequest (the terms of the will have not yet been fully clarified) might well have an important bearing on the present proposal.

South Boston Strandway improvements. It is also proposed that \$1,500,000 be expended for "South Boston Strandway improvements, consisting of the construction of retaining walls, approaches to beaches, walks, fountains, and a plaza, together with the construction of a laundry building, solariums for women and children, an addition to Columbus Park Bath House, an addition to the Aquarium, additional parking areas and other improvements."

The City has invested some six million dollars in extensive park and beach facilities in the Marine Park System. Since the depression started, \$975,000 has been borrowed for construction purposes in this system, -- \$750,000 in 1930 and 1931 for Columbus Park and the Strandway, and \$225,000 in 1931 for Castle Island and Marine Park.

High service water pipe extensions. As originally stated by the Mayor, his program contemplated the expenditure of \$800,000 for "high service water pipe extensions, including the construction of mains in the Dorchester, Roxbury, and Beacon Hill sections of the city." We have been informed that this expenditure is to be divided into two equal parts, one-half to be devoted to the construction of a 7,300 foot, 48 inch, steel pipe line to provide "high service" on Forest Hills Street and Walnut Avenue, and connecting streets; the other half to be used for replacing an old, 40 inch, cast-iron, ^{low-pressure} service main (built in 1860) on Brookline

Avenue from Muddy River to Beacon Street. The latter work would involve the installation of 6,700 feet of 48 inch steel pipe/^{low} pressure service.

The total cost of construction for water service in Boston to date is about \$23,000,000. The net city water debt as of June 30, 1933, was \$408,000. In addition, the City's share of the net metropolitan water debt (64.1% of the total) amounted to \$20,333,000 as of July 1, 1932.

The total expenditures of the City in 1932 for water service were \$4,748,000, of which \$2,034,000, or 43%, was expended for debt service on the City water debt and the City's share of the metropolitan water debt.

If investigation of the requirements of the territories served and the condition of existing facilities, shows either or both of these projects to be necessary, it is to be presumed that the additional debt service charges will be met from water revenues as has been the case in the past.

Construction of new fire stations. It is understood that this proposal, involving the expenditure of \$600,000, contemplates the construction of two new stations, one on or near Hanover Street to replace two existing structures, and the other on Harrison Avenue to replace the present station house at or near its present location.

In December of 1929, a special committee appointed by the Mayor made an extended, detailed report on "The Problem of Fire Waste and Insurance Rates in the City of Boston." This report indicated the possibility of reducing by half the annual fire losses of Boston, which have ranged between \$3,500,000 and \$4,500,000 in recent years. The report recommended that a thorough study be made (1) "of the distribution of fire stations and fire apparatus to be used as a basis for planning the future development of the department," and (2) of a mutual aid system in the metropolitan district. As far as is known, no adequate studies have been made relative to these two questions.

The exact location of the proposed two-company station "on or near

Hanover Street" has not yet been announced. It would house Ladder Company Number 1, now located in an old station at Friend and Merrimac Streets. This old station should be removed to clear the way for one of the approaches to the East Boston traffic tunnel. The new station would also house Engine Company Number 8, now located in a serviceable brick structure, on Salem Street near Prince Street, which was remodelled in 1916 and 1917. Salem Street is narrow and frequently congested, particularly with parked cars.

It does not seem necessary to construct a new Hanover Street station to house Engine Company Number 8, and Ladder Company Number 1. This engine company could continue to serve a congested traffic area at its present location. The ladder company could either be eliminated, or else replace one of the engine companies at Bowdoin Square station, which would thereby be eliminated. Bowdoin Square station is a nearby, modern structure which was opened in November of 1930, and houses two engine companies (Numbers 4 and 6), one ladder company (Number 24), a water tower (Number 1), a rescue company (Number 3), and the automobile serving the district chief. This station is strategically located to take advantage of the eventual connections between Cambridge Street and the new traffic tunnel which will provide access to the North End district.

The elimination of either an engine or ladder company as suggested above would not reduce the radius of operation of the remaining engine or ladder companies below the "standard coverages" which have been promulgated by the National Board of Fire Underwriters. The suggestion should be submitted to the National Board for its approval.

The other two-company station to be constructed will replace the present station housing Engine Company Number 3, and Ladder Company Number 3. It would either be located as at present on Bristol Street, near Harrison Avenue, and just south of Dover Street, or on Harrison Avenue near Wareham Street (about 1,400 feet from Bristol Street). This building is old but has

adequate space. It formerly housed a water tower. Fire headquarters and the repair shops of the department extend in the rear of the station along Bristol Street.

The outright elimination of this station also seems feasible, and plans to achieve that end should be submitted to the National Board of Fire Underwriters. Nearby equipment would still meet the "standard coverage" requirements of the National Board after the engine and ladder companies housed on Bristol Street are eliminated. In any event, however, no justification exists for constructing a new building.

Playgrounds and Parks; Prison, and Public Works Buildings. There remain but three projects aggregating to \$2,500,000 on the Mayor's program which are grouped together here because of conditions attending the vote on the projects by the Boston City Council. The three projects are as follows:

Playground and park improvements, including the construction of outdoor bathing pools and field houses in all sections of the City, to be constructed at an estimated cost of \$1,200,000.

New prison building and dining hall at the House of Correction on Deer Island, to be constructed at an estimated cost of \$800,000.

Buildings in various yards of the Public Works Department, to be constructed at an estimated cost of \$500,000.

The law relating to local federal aid projects in Massachusetts specifies (Chapter 366, Acts of 1933, Part I, Section 2):

"Any city or town, including Boston, by a two-thirds vote as defined in section one of chapter forty-four of the General Laws, with the approval of the Mayor of such a city, may engage in any" federal-aid project if the state board, the governor, and the federal authorities agree.

On August 7, 1933 the City Council of Boston, by the necessary two-thirds vote, approved each of nine projects on the Mayor's program, but failed to do so in connection with the three projects listed above. Of the 22 members

of the Council, 21 were present, and voted 13 to 8, less than the two-thirds requirement, in favor of each of the three projects. Reconsideration was then moved by a rising vote.

The City Council passed, by a majority vote of 12 to 7, a substitute order "that the City of Boston hereby proposes for approval under Part I of Chapter 366 of the Acts of 1933" the three projects under discussion.

Since these projects have never received the necessary two-thirds vote it is not known whether the Mayor will submit them to the federal and state boards for approval. They are, therefore, not discussed in this memorandum.

Part IV

EXECUTION OF PROJECTS

The foregoing discussion has related exclusively to the selection and approval of individual projects. After projects have been chosen it is essential that proper mechanism be set up to control their execution. The following brief suggestions cover those aspects of control which merit special consideration:

1. Maximum limit on expenditures. Such a limit protects the finances

of cities from expenditures above those originally intended. With proper supervision it will go a long way toward insuring adequate technical planning before new projects are started which for many years will require debt service charges.

2. Contracts and competitive bidding. The federal and state boards

should require open bidding on contracts, which have been duly advertised. Specifications should be examined to insure that they are so framed as not to restrict competition. If contracts are not required for relatively small purchases, split contracts which might be used as a method of dodging contract requirements should be prohibited. Bids and awards should be open to the public. Awards should be made to the lowest responsible and eligible bidder.

"Extras" on contracts should receive careful scrutiny.

3. Land takings. These may constitute an important part of the ex-

penditures for a public works project. It would seem proper that information should be required describing property to be taken or purchased; its assessed valuation, information as to owners and option-holders, the damages requested by the owner, the damages awarded, and betterment assessments. The boards should scrutinize such information before giving approval or disapproval.

4. Supervision of projects. Since federal-aid is being extended

on public works projects, federal authorities at least should maintain an inspection service which will examine the supplies and materials, and the

methods of construction used either by city forces or by a private contractor on such projects. Such supervision might well require also that cities make monthly reports covering all expenditures. Moreover, all basic records should be made available to the public, thereby giving official bodies the benefit of scrutiny by private organizations.

5. Reducing city welfare costs. Requirements would seem feasible whereby contractors might be compelled to recruit at least part of their labor from the recipients of city welfare payments. Contractors should make available at proper intervals to city welfare and soldiers' relief departments, information as to persons employed, for use by those departments in preventing improper welfare allowances. If possible, welfare recipients who are receiving the largest monthly allowances should be employed first, especially on city work.

6. New city debt. Bonds floated by cities should be governed by a schedule insuring that bond terms do not exceed the life of the improvement being made.





